M.O.649

AIR MINISTRY
METEOROLOGICAL OFFICE

THE OBSERVATORIES' YEAR BOOK 1946

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the Lerwick, Aberdeen, Eskdalemuir, and Kew Observatories

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PREFACE

The *Observatories' Year Book* was published for the years 1922 to 1937 in continuation of Part III Section II and Part IV of the *British Meteorological and Magnetic Year Book* for the period 1908 to 1921.

Publication of the *Observatories' Year Book* was necessarily suspended during the 1939-45 war. Restrictions on supplies and printing since the war resulted in a regrettably long delay in the resumption of publication. In face of the formidable accumulation of arrears, and taking changed requirements into account, it was decided to adopt an abridged form as outlined below.

It was agreed that the General Introduction to the Meteorological Tables and the parts of the Section Introductions which deal with site, instruments, procedure and tabulation included in the volume for 1938 should serve as standards of reference for several years; and that only important departures from these standards, together with any requisite additional information, should be included in the relevant parts of the volumes for the years after 1938. The space devoted to the discussion of observations was reduced. Monthly tables of individual hourly values of meteorological elements were discontinued, but summaries of daily mean values (or totals), monthly means (or totals) of hourly values and some maximum and minimum values are given. The diary of cloud, weather and visibility was also discontinued. No major changes were made in the atmospheric electrical and meteorological tables. The aerological and seismological tables were discontinued after 1939.

The present volume, 1946, presents atmospheric electrical and geomagnetic data for Lerwick Observatory; meteorological data for Aberdeen; meteorological, atmospheric electrical and geomagnetic data for Eskdalemuir; meteorological, atmospheric electrical and atmospheric pollution data for Kew.

Meteorological and geomagnetic data for Velentia Observatory are no longer included in the *Observatories' Year Book*, but are published by the Dublin Department of Industry and Commerce Meteorological Service.

Manuscript tabulations of hourly values of the meteorological elements are available at the observatories. Requests for information from these tabulations should be addressed to the Director- General, Meteorological Office, Air Ministry, Victory House, Kingsway, London, W.C.2.

NOTES ON THE TABLES: Maximum and minimum values are shown in italics.

PAGE

Preface iii

LERWICK OBSERVATORY

TABLE

Introduction 3
1 Magnetic character figures, Mean character figures 4
2 Absolute daily range and mean monthly values 5
3 Frequency distribution of absolute daily range 5
4 Average range of diurnal inequality 1932-42 with 1946 value as percentage of this 6
5 Ratio of range of inequality at Lerwick to that at Eskdalemuir 1946 6
6 Principal magnetic disturbances recorded at Lerwick, 1946 7

ATMOSPHERIC ELECTRICITY

Potential gradient
7 Daily values and monthly and annual means at 2-3h., 8-9h., 14-15h., 20-21h. 12
8 Diurnal inequalities (0a days only and 1a and 2a days only) 14
9 Electrical character of each day and approximate duration of negative potential gradient .. 15

TERRESTRIAL MAGNETISM

10-57 Hourly values of horizontal force, declination and vertical force; hourly, daily and monthly means 16
Daily extremes and range; monthly means 17
Magnetic character figures; daily values and monthly means 17
Temperature in magnet house; daily observations and monthly means 17
58-60 Diurnal inequalities; horizontal force, declination and vertical force, monthly, annual and seasonal means for each hour 40
61 Diurnal inequalities; monthly, seasonal and annual range 43
62 Average departure from daily mean 43
63 Monthly, annual, and seasonal values of non-cyclic change of horizontal force, declination and vertical force 43
64 Mean monthly and annual values of magnetic elements 43

AURORA

65 Auroral log 44
66 General auroral log 46

ABERDEEN OBSERVATORY

Introduction 49
67 Harmonic components of the diurnal inequality of atmospheric pressure 50

METEOROLOGY

Pressure
68 Daily, monthly and annual maximum, minimum and mean values at station level 51
69 Monthly and annual means of hourly values at station level 52
70 Monthly and annual means of hourly values at mean sea level 52

Temperature
71 Monthly and annual means of hourly values 52
72 Daily, monthly and annual maximum, minimum and mean values 53

ABERDEEN OBSERVATORY - *continued*

TABLE		PAGE
	Humidity	
73	Daily and monthly means of relative humidity and vapour pressure	54
74	Monthly and annual means of hourly values of relative humidity	54
75	Monthly and annual means of hourly values of vapour pressure	54
	Rainfall	
76	Daily and monthly values of amount, duration and maximum rate	55
77	Monthly and annual hourly totals of amount	56
78	Monthly and annual hourly totals of duration	56
79	Notes on rainfall for the year	56
	Sunshine	
80	Daily totals and monthly and annual means of duration with percentage of possible for each day	57
81	Monthly and annual hourly totals of duration	57
	Wind	
82	Daily mean and highest instantaneous speed	58
83	Monthly and annual means of hourly mean speed	58
84	Distribution of speed, extreme velocities	58
	Ground Temperature	
85	Daily values and monthly and annual means at 9h. at depths of 30 cm. and 122 cm.	59
	Minimum temperature on the grass	
86	Daily values and monthly and annual means, 18h. to 7h.	59

ESKDALEMUIR OBSERVATORY

	Introduction	63
87	Harmonic coefficients of the diurnal inequality of atmospheric pressure	64
88	Magnetic character figures, Mean character figures	65
89	Absolute daily range and mean monthly values	66
90	Frequency distribution of absolute daily range	66
91	Average range of diurnal inequality 1932-42 with 1946 value as percentage	67
92	Principal magnetic disturbances recorded at Eskdalemuir, 1946	68

METEOROLOGY

	Pressure	
93	Daily, monthly and annual maximum, minimum and mean values at station level	77
94	Monthly and annual means of hourly values at station level	78
95	Monthly and annual means of hourly values at mean sea level	78
	Temperature	
96	Monthly and annual means of hourly values	78
97	Daily, monthly and annual maximum, minimum and mean values	79
	Humidity	
98	Daily and monthly means of relative humidity and vapour pressure	80
99	Monthly and annual means of hourly values of relative humidity	80
100	Monthly and annual means of hourly values of vapour pressure	80
	Rainfall	
101	Daily and monthly values of amount, duration and maximum rate	81
102	Monthly and annual hourly totals of amount	82
103	Monthly and annual hourly totals of duration	82
104	Notes on rainfall for the year	82

ESKDALEMUIR OBSERVATORY - *continued*

TABLE		PAGE
	Sunshine	
105	Daily totals and monthly and annual means of duration with percentage of possible for each day	83
106	Monthly and annual hourly totals of duration	83
	Wind	
107	Daily mean and highest instantaneous speed	84
108	Monthly and annual means of hourly mean speed	84
109	Distribution of speed, extreme velocities	84
	Ground temperature	
110	Daily values and monthly and annual means at 9h. at depths of 30 cm. and 122 cm.	85
	Minimum temperature on the grass	
111	Daily values and monthly and annual means, 18h. to 7h.	85

ATMOSPHERIC ELECTRICITY

	Potential gradient	
112	Daily values and monthly and annual means at 2-3h., 8-9h., 14-15h., 20-21h.	86
113	Diurnal inequalities (0a days only and 1a and 2a days only)	88
114	Electrical character of each day and approximate duration of negative potential gradient	89

TERRESTRIAL MAGNETISM

115-162	Hourly values of horizontal component, declination and vertical component; hourly, daily and monthly means	90
	Daily extremes and range; monthly means	91
	Magnetic character figures; daily values and monthly means	91
	Temperature in magnet house; daily values and monthly means	91
163-168	Diurnal inequalities; north, west and vertical components, declination, inclination and horizontal components, monthly, seasonal and annual means for each hour	114
169	Diurnal inequalities; monthly, seasonal and annual range	120
170	Monthly, annual and seasonal values of non-cyclic change of horizontal force, declination and vertical force	120
171	Mean monthly and annual values of magnetic elements	120
172-173	Harmonic components of the diurnal inequality of magnetic force	121

KEW OBSERVATORY

	Introduction	125
174	Diurnal variation of barometric pressure fourier coefficients	127
175	Diurnal variation of temperature fourier coefficients	127

METEOROLOGY

	Pressure	
176	Daily, monthly and annual maximum, minimum and mean values at station level	130
177	Monthly and annual means of hourly values at station level	131
178	Monthly and annual means of hourly values at mean sea level	131
	Temperature	
179	Monthly and annual means of hourly values	131
180	Daily, monthly and annual maximum, minimum and mean values	132
	Humidity	
181	Daily and monthly means of relative humidity and vapour pressure	133
182	Monthly and annual means of hourly values of relative humidity	133
183	Monthly and annual means of hourly values of vapour pressure	133

KEW OBSERVATORY-*continued*

TABLE		PAGE
	Rainfall	
184	Daily and monthly values of amount, duration and maximum rate	134
185	Monthly and annual hourly totals of amount	135
186	Monthly and annual hourly totals of duration	135
187	Notes on rainfall for the year	135
	Sunshine and solar radiation	
188	Daily totals and monthly and annual means of duration of bright sunshine with percentage of possible for each day	136
	Daily totals and monthly and annual means of total solar radiation	136
189	Monthly and annual hourly totals of duration of bright sunshine	137
190	Monthly and annual hourly totals of solar radiation	137
	Wind	
191	Daily mean and highest instantaneous speed	138
192	Monthly and annual means of hourly mean speed	138
193	Distribution of speed, extreme velocities	138
	Ground temperature	
194	Daily values and monthly and annual means at 9h. at depths of 30 cm. and 122 cm.	139
	Minimum temperature on the grass	
195	Daily values and monthly and annual means, 21h. to 9h.	139
	ATMOSPHERIC ELECTRICITY	
196	Daily values and monthly and annual means of conductivity, air-earth current and of ionic charges	140
197	Electric character of each day and approximate duration of negative potential gradient	141
	Potential gradient	
198	Daily values and monthly and annual means at 2-3h., 8-9h., 14-15h., 20-21h.	142
199	Diurnal inequalities (selected quiet days)	144
	ATMOSPHERIC POLLUTION	
200	Monthly, seasonal and annual means for each hour	144

LERWICK

LERWICK OBSERVATORY

Latitude	60°08′N.
Longitude	1°11′W.
G.M.T. of Local Mean Noon	12h. 5m.
Height of site above M.S.L. ..	80 to 90 metres

INTRODUCTION

Full details of the site, instruments, procedure and tabulation are given in the *Observatories' Year Book, 1938*. Changes and additions only are mentioned here.

Atmospheric electricity

No changes were made in 1946.

Terrestrial magnetism

In June small low-temperature thermostatically controlled a.c. electric heaters were placed in the magnetograph chamber to reduce the persistent damp.

The average day-to-day change of temperature in the magnetograph house for each of the twelve months of 1946 and for the year as a whole was as follows (in degrees Absolute):

Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
0.24	*0.37*	*0.34*	*0.33*	*0.47*	*0.69*	*0.76*	*0.38*	*0.46*	*0.69*	*0.66*	*0.33*	*0.47*

There were 38 occasions on which the change reached or succeeded 1°A. As already stated in the *Observatories' Year Book, 1938*, a Smith portable coil magnetometer, which had been reconstructed to operate as a Schuster-Smith coil magnetometer, was brought into use and adopted as the standard instrument in October 1939. The volume for 1938 contains a statement on the corrections arising from the instrumental changes and comparisons, to be applied to the values of *H*, *D* and *V* published for the years 1923-1938. Corresponding corrections have not been applied to the individual values in the four tables for each month given in this volume but are shown in the tables and repeated below. The values of the elements given in Table 64 and elsewhere in the volume have been corrected.

Corrections

H	−6γ throughout
D	−4·3′ throughout
V	varies from month to month as below

Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
−3γ	−2γ	−1γ	−1γ	−1γ	−1γ	0	0	0	0	0	+1γ

Notes on the results

The factor to change variations of *D* exposed in minutes to units of force (γ) perpendicular to the magnetic meridian was approximately 4·18.

Comparing the mean values for all days of 1946 with those for 1945 it is noted that *H* decreased by 13γ, *D* (west) decreased by 9′ and *V* increased by 26γ. The ranges between the extreme values recorded during 1946 were *H*, 3632γ; *D*, 6°17′·5; and *V*, 2307γ. At the assembly of the Association of Terrestrial Magnetism and Electricity at Washington in September 1939, a new measure of magnetic disturbance, the *K* index, was agreed upon. Measurements of *K* are

now given in this volume, replacing the former measure $(HR_H + VR_V)10^{-4}$, in accordance with the International Association of Terrestrial Magnetism and Electricity circular letter dated 20 January 1940.

The *K* index is fully described in *Terrestrial magnetism and atmospheric electricity.** Briefly, a figure is allotted on a scale 0-9 to each 3-hour interval. The figure is a measure of the range of magnetic force during that period, measured from a curved line which represents the normal quiet-day variation. The figures are first allotted from the *H* magnetogram and then increased, if necessary, by inspection of the *D* and *V* curves, so the the most disturbed component determines the final figure.

The scale of ranges in γ corresponding to the figures 0-9 varies from observatory to observatory. The lower limit of each number for Lerwick is:

K	0	1	2	3	4	5	6	7	8	9
Range in γ	0	10	20	40	80	140	240	400	660	1000

Table 1 has been slightly changed in form from previous years owing to the omission of $(HR_H + VR_V)10^{-4}$. *K* figures and their sums have been given for each day in the main tables, but as it is considered that monthly means of *K* figures are not a good measure of activity they are not included. Tables 2, 3, 4 and 5 follow the pattern of previous years.

TABLE 1

	Magnetic character figures			Mean character figures	
	Number of				
	0 days	1 days	2 days	Lerwick	International
January	13	16	2	0·65	0·55
February	8	15	5	0·89	0·69
March	9	17	5	0·87	0·84
April	11	16	3	0·73	0·58
May	10	17	4	0·81	0·62
June	8	19	3	0·83	0·63
July	10	17	4	0·81	0·71
August	10	19	2	0·74	0·42
September	8	14	8	1·00	0·82
October	11	18	2	0·71	0·51
November	11	18	1	0·67	0·52
December	14	17	0	0·55	0·39
Year					
1946	123	203	39	0·77	0·61
1945	159	189	17	0·61	0·47
1944	162	189	15	0·60	0·52
1943	145	199	21	0·66	0·68
1942	146	194	25	0·67	0·64
1941	172	169	24	0·60	0·73
1940	178	162	26	0·59	0·72
1939	186	143	36	0·59	0·77
1938	180	133	52	0·65	0·76
1937	119	197	49	0·81	0·73
1936	133	206	27	0·71	0·65

* BARTELS, J., HECK, N.H. and JOHNSTON, H.F.; The three-hour-range index measuring geomagnetic activity. Terrestrial magnetism and atmospheric electricity, Baltimore, 44, 1939, p.411.

TABLE 2 - ABSOLUTE DAILY RANGE AND MEAN MONTHLY VALUES

	Mean absolute daily range						Mean daily range expressed as percentage of yearly mean					
	1946			Mean 1932-42			1946			Mean 1932-42		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	γ	γ	γ	γ	γ	%	%	%	%	%	%
January	133	100	98	94	96	96	64	73	62	65	92	80
February	207	174	198	110	106	114	99	127	125	76	102	95
March	395	232	276	196	138	165	190	169	174	136	133	137
April	269	160	202	206	123	160	129	117	127	143	118	133
May	198	113	158	181	103	129	95	83	99	126	99	107
June	210	107	152	135	88	100	101	78	96	94	84	83
July	272	136	154	153	90	107	131	99	97	106	86	89
August	139	102	102	151	98	108	67	74	64	105	94	90
September	421	252	282	159	114	138	202	184	177	111	110	115
October	117	99	123	160	119	141	56	72	77	111	114	117
November	78	92	95	93	92	99	38	67	60	65	88	82
December	57	71	62	85	87	88	27	52	39	59	84	73
Winter	119	109	114	96	95	100	57	80	72	67	91	83
Equinox	301	186	221	180	124	151	145	136	139	125	119	126
Summer	205	115	141	155	95	111	99	84	89	108	91	92
Year	208	137	159	144	104	120	..	..	..	..	..	..

"Winter" comprises the four months January, February, November, December: "Equinox" the months March, April, September, October: and "Summer" May to August.

TABLE 3 - FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE

	Number of cases, 1946			Percentage distribution					
				H		*D*		*V*	
Range	*H*	*D*	*V*	1946	1932-42	1946	1932-42	1946	1932-42
γ				%	%	%	%	%	%
0 - 9	0	0	2	0·0	0·0	0·0	0·0	0·5	0·5
10 - 19	1	0	17	0·3	1·8	0·0	0·5	4·7	8·2
20 - 29	15	8	37	4·1	5·2	2·2	2·6	10·1	12·2
30 - 39	21	9	35	5·8	7·4	2·5	4·8	9·6	9·9
40 - 49	21	13	25	5·8	7·7	3·6	8·6	6·9	7·4
50 - 59	27	31	27	7·4	10·3	8·5	11·3	7·4	6·0
60 - 69	31	44	21	8·5	10·2	12·0	13·9	5·8	5·2
70 - 79	32	53	12	8·8	9·7	14·5	9·8	3·3	4·8
80 - 89	30	39	9	8·2	7·8	10·7	9·2	2·5	3·8
90 - 99	21	29	13	5·8	5·6	7·9	6·5	3·6	3·3
100 - 109	21	27	16	5·8	4·1	7·4	4·8	4·4	3·6
110 - 119	19	16	13	5·2	2·9	4·4	3·6	3·6	2·7
120 - 129	16	8	11	4·4	2·6	2·2	3·4	3·0	2·5
130 - 139	6	14	13	1·6	1·7	3·8	3·3	3·6	2·2
140 - 149	10	13	8	2·7	2·1	3·6	3·0	2·2	2·2
150 - 159	6	8	7	1·6	1·3	2·2	1·6	1·9	1·9
160 - 169	4	2	6	1·1	1·5	0·5	1·5	1·6	1·8
170 - 179	2	4	7	0·5	1·0	1·1	1·4	1·9	1·1
180 - 189	0	3	6	0·0	0·9	0·8	1·2	1·6	1·5
190 - 199	5	2	3	1·4	1·0	0·5	0·9	0·8	1·5
200 +	77	42	77	21·0	15·2	11·5	8·0	21·0	17·8
Days omitted	0	0	0	..	..	..	..	..	..

TABLE 4 - AVERAGE RANGE OF DIURNAL INEQUALITY 1932-42 WITH 1946 AS PERCENTAGE OF THIS

		All days			International quiet days			International disturbed days		
		V	*H*	*D*	*V*	*H*	*D*	*V*	*H*	*D*
		γ	γ	′	γ	γ	′	γ	γ	′
Year	1932-42	47·5	46·7	9·04	9·3	36·5	8·30	118·9	117·1	13·55
	1946(%)	103	126	104	114	113	118	106	168	113
Winter	1932-42	38·0	23·4	7·60	7·3	14·7	4·32	110·2	79·3	12·83
	1946(%)	97	100	98	96	127	111	100	129	112
Equinox	1932-42	60·0	54·3	10·60	11·6	41·4	9·25	150·3	167·2	18·61
	1946(%)	107	141	105	131	110	111	130	215	134
Summer	1932-42	47·6	69·7	12·38	15·6	55·8	12·14	124·3	140·3	14·59
	1946(%)	111	119	109	128	114	121	105	128	106

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

TABLE 5 - RATIO OF RANGE OF INEQUALITY AT LERWICK TO THAT AT ESKDALEMUIR 1946

Type of day	Element	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
q	*D*	1·14	1·01	1·01	1·00	1·09	1·06	1·12	1·06	1·03	0·95	1·09	0·99
d	*D*	1·29	1·51	1·94	1·26	1·35	1·19	1·24	1·19	1·25	1·37	1·25	1·24
q	*H*	0·76	1·03	0·98	1·11	1·23	1·18	1·08	1·10	1·05	0·93	0·84	0·88
d	*H*	3·90	1·45	1·64	1·28	1·74	2·21	0·95	1·54	2·34	2·46	1·01	0·84
q	*V*	1·68	0·98	0·74	0·83	0·85	0·95	0·91	0·87	1·12	2·07	1·02	0·89
d	*V*	1·37	1·31	0·93	1·00	1·68	1·65	0·83	1·47	1·17	2·65	2·15	1·79

Magnetic disturbances.- Particulars of the principal magnetic disturbances recorded at Lerwick during the year are given in Table 6. In the Eskdalemuir Section will be found a similar list which deals with the same disturbances as recorded at that Observatory. Within the limit of accuracy of measurement and registration "sudden commencements" appear to occur simultaneously at the two Observatories.

TABLE 6 - PRINCIPAL MAGNETIC DISTURBANCES RECORDED AT LERWICK, 1946

No.	From	To	Horizontal force					Declination					Vertical force				
			Max.	Time	Min.	Time	Range	Max	Time	Min.	Time	Range	Max.	Time	Min.	Time	Range
	d. h. m.	d. h.	γ	d. h. m.	γ	d. h. m.	γ	′	d. h. m.	′	d. h. m.	′	γ	d. h. m.	γ	d. h. m.	γ
1*	Jan. 3 8 9	Jan. 5 5	1093	3 16 2	−755	3 21 35	1848	51·1	3 12 9	−53·6	3 21 40	104·7	1236	3 15 29	574	4 20 26	662
2	Jan. 23 20	Jan. 25 3	403	23 22 19	295	23 22 53	108	33·3	24 12 57	−28·3	23 22 20	61·6	1085	24 13 59	838	23 22 50	247
3	Feb. 7 7	Feb. 9 0	1009	7 11 18	−695	7 23 3	1704	175·1	7 22 50	−134·6	8 0 33	309·7	1651	8 0 37	144	7 22 26	1507
4	Feb. 14 7	Feb. 15 2	431	14 17 38	266	15 3 56	165	45·3	15 4 19	9·4	14 8 42	35·9	1059	14 10 53	826	15 4 42	233
5*	Feb. 19 15 0	Feb. 20 1	708	19 20 36	139	19 22 24	569	40·9	19 20 8	−8·2	19 22 3	49·1	1174	19 19 5	797	19 22 11	377
6	Feb. 20 18	Feb. 24 3	809	21 14 55	−42	21 1 11	851	46·3	20 21 4	−34·8	20 21 38	81·1	1219	21 14 47	713	20 22 28	506
7*	Mar. 1 1 37	Mar. 2 19	411	1 1 40	193	1 4 9	218	39·5	2 0 37	−1·8	1 3 33	41·3	1002	1 23 28	812	1 4 9	190
8	Mar. 4 7	Mar. 7 4	449	5 14 33	36	5 0 18	413	54·2	4 22 22	−5·6	5 0 42	59·8	1159	5 16 37	733	4 22 20	426
9	Mar. 9 13	Mar. 12 0	527	10 20 4	−343	11 1 17	870	59·5	10 22 50	−63·0	11 0 12	122·5	1119	9 17 43	591	11 1 19	528
10*	Mar. 22 5 39	Mar. 28 6	1247	24 15 57	−1181	25 1 4	2428	173·5	25 17 29	−142·2	24 2 20	315·7	1382	25 23 15	21	25 17 7	1361
11*	Mar. 28 6 35	Mar. 30 4	1247	28 15 25	−389	28 12 21	1636	133·7	28 22 2	−131·7	28 19 47	265·4	1476	28 22 6	−140	28 15 4	1616
12	Apr. 9 8	Apr. 10 17	640	9 15 8	275	10 0 54	365	33·5	9 13 18	−8·6	9 22 47	42·1	1526	9 12 13	842	10 1 8	684
13	Apr. 12 19	Apr. 17 4	636	15 13 13	133	15 2 27	503	57·9	15 19 14	−15·7	15 2 42	73·6	1188	15 12 53	798	15 2 59	390
14*	Apr. 22 6 59	Apr. 25 16	1162	23 15 51	−1128	23 23 38	2290	118·7	23 16 56	−186·3	23 23 38	305·0	2167	23 23 49	529	24 3 48	1638
15*	May 6 4 15	May 12 0	739	9 15 3	80	7 6 6	659	50·9	11 9 13	−25·4	6 22 48	76·3	1200	9 15 3	748	9 4 25	452
16	May 20 16	May 27 0	575	23 17 50	68	23 1 24	507	42·2	21 20 44	−10·3	22 4 31	52·5	1109	22 16 7	680	22 4 30	429
17*	June 5 20 10	June 6 22	459	5 20 14	300	6 11 3	159	27·6	6 14 32	5·7	6 7 55	21·9	1031	6 13 39	923	6 0 25	108
18*	June 7 7 37	June 10 0	835	7 16 45	136	8 2 8	699	38·5	7 17 34	2·9	7 9 50	35·6	1275	7 14 42	792	8 2 47	483
19*	June 12 3 1	June 14 0	563	12 15 41	257	12 22 27	306	31·0	12 22 58	−0·8	12 22 36	31·8	1164	12 15 39	818	12 22 21	346
20	June 16 7	June 23 0	470	16 19 27	−267	17 0 33	737	27·6	18 20 6	−53·0	17 0 32	80·6	1089	18 18 5	667	17 0 28	422
21*	June 27 17 27	June 30 0	820	29 17 29	257	29 20 59	563	74·6	29 18 9	−1·2	29 4 52	75·8	1174	29 17 29	800	29 18 9	374
22	July 7 2	July 12 0	515	7 17 47	66	8 0 10	449	32·4	{7 17 46 10 12 34	−6·3	8 1 47	38·7	1127	9 16 30	846	8 0 25	281
23	July 18 9	July 20 4	724	18 16 24	181	19 2 19	543	47·8	18 17 10	−1·6	18 22 28	49·4	1168	18 16 25	808	19 2 27	360
24	July 25 10	July 29 4	968	26 20 35	−1781	27 6 40	2749	182·8	27 6 27	−114·4	27 0 58	297·2	1468	27 3 10	698	27 7 10	770
25	July 29 4	July 30 20	625	29 16 40	140	30 3 43	485	36·8	29 17 20	0·5	30 7 22	36·3	1076	29 17 12	872	30 1 7	204
26	Aug. 7 10	Aug. 8 1	617	7 15 47	318	7 10 39	299	37·4	7 16 52	3·4	7 19 43	34·0	1216	7 15 26	1023	7 12 20	193
27	Aug. 14 1	Aug. 17 24	487	15 17 2	135	14 21 1	352	67·4	14 21 54	−14·7	14 20 38	82·1	1084	14 20 27	765	16 22 11	319
28*	Aug. 30 22 40	Aug. 31 24	522	31 16 52	−99	31 5 18	621	66·0	31 5 31	−19·3	31 2 20	85·3	1155	31 17 9	588	31 5 46	567
29*	Sept. 16 13 47	Sept. 17 8	659	16 18 48	−162	17 2 5	821	79·5	16 18 51	−45·4	17 1 50	124·9	1137	16 17 50	718	17 1 17	419
30	Sept. 17 14	Sept. 20 2	857	19 13 20	−376	18 2 18	1233	114·6	18 18 52	−194·7	18 4 3	309·3	1336	18 18 55	−109	18 3 0	1445
31*	Sept. 21 17 12	Sept. 24 17	1851	22 13 18	−438	23 3 55	2289	144·5	22 5 0	−141·5	22 13 50	286·0	1586	22 11 35	332	22 5 30	1254
32	Sept. 27 2	Oct. 1 2	1116	28 15 36	−391	29 1 9	1507	112·5	28 15 39	−37·7	28 21 35	150·2	1436	29 0 32	641	29 1 31	795
33*	Oct. 25 21 58	Oct. 28 2	464	27 13 5	−341	27 0 28	805	41·8	27 1 22	−57·2	27 2 32	99·0	1132	27 14 29	552	26 23 50	580
34*	Nov. 24 3 45	Nov. 26 19	443	25 20 20	287	24 13 51	156	40·8	24 13 14	−12·4	25 20 18	53·2	1070	24 13 48	908	26 3 29	162

Where the beginning of a disturbance has been marked by a "sudden commencement" the serial number is followed by an asterisk and the time entered in the second column is that of the "sudden commencement" estimated to the nearest minute. In other cases, the exact hour nearest the time at which disturbance may be regarded as having begun is entered in the second column. To the tabulated values of maximum and minimum the following have to be added: *H*, 14,000γ; *D*, 11°; *V*, 46,000γ.

REMARKS ON THE AUTOGRAPHIC RECORDS 1946

The Lerwick mean character figure for the month is shown in brackets after the name of the month.

January (average character figure 0·65).- The month opened quietly with only minor disturbance evident, but a "sudden commencement" was recorded at 3d.8h.11m. and a violent storm quickly developed. Variations in *H* were particularly marked and this element ranged from a maximum of 15093γ at 3d.16h.2m. through 1848γ to a minimum of 13245γ at 21h.35m.; ranges for *D* and *V* were 104′·7 and 662γ respectively. The intensity of the storm decreased appreciably about 4d.5h. and after renewed activity during the late afternoon and evening of 4d. when ranges of 744γ, 57′·2 and 564γ were recorded on *H*, *D* and *V* respectively, activity decreased to the minor level evident at the beginning of the month. Evening bays particularly on *D* were slightly enlarged to 8d. and activity increased a little during 11d. Evening bays on *D* were again slightly enlarged on 12d. and 13d. but 14d. and most of 15d. were quiet. Minor disturbance returned during the evening of 15d. and re-occurred each evening to 19d. The 20d. was quiet but minor activity returned again late on 21d. There were enlarged night bays on 23d., that of *D* being some 55′ deep and activity on 24d. was on a moderate level. The disturbance decreased on 25d., however, and minor activity prevailed to the end of the month.

February (average character figure 0·89).- The opening days of the month were quiet or only mildly disturbed and a "sudden commencement" at 3d.13h.42m. brought only a slight increase in activity. Moderate disturbance then prevailed to 7d. when a particularly violent storm quickly developed about 9h. Wild fluctuations occurred on all elements particularly between 7d.21h. and 8d.5h. Maxima were 15009γ and 13°55′·0 and 47651γ at 7d.11h.18m., 7d.22h.50m. and 8d.0h.37m., and minima were 13305γ, 8°45′·3 and 46144γ at 7d.23h.3m., 8d.0h.33m. and 7d.22h.26m. on *H*, *D* and *V* respectively, giving ranges of 1704γ, 5°9′·7 and 1507γ. Major activity died out during the evening of 9d. although moderate or mild disturbance continued to the afternoon of 13d. and reappeared again about 14d.6h. A "sudden commencement" was recorded at 14d.17h.37m. but brought little increase to the moderate disturbance already prevalent although night bays on *H* and *V* and a hump on *D* were somewhat enlarged. Quiet or only mildly disturbed conditions were restored by 16d. but activity gradually increased on 18d. and a further well marked "sudden commencement" was recorded at 19d.15h.1m. This was followed by steady rises and falls to maxima of 14708γ, 11°40′·8 and 47174γ at 19d.20h.36m., 19d.20h.8m. and 19d.19h.5m. to 14139γ 10°51′·7 and 46797γ at 19d.22h.24m., 19d.22h.3m. and 19d.22h.11m. on *H*, *D* and *V* respectively. All elements recovered by 20d.1h. and remained quiet to 17h. Further activity then became apparent and soon increased to storm proportions, although changes continued to be unusually steady. All elements first rose to minor maxima and then fell through a series of secondary minima into deep broad bays which reached absolute minima of 13958γ, 10°25′·1 and 46713γ at 21d.1h.11m., 20d.21h.38m. and 20d.22h.28m. for *H*, *D* and *V*. *D* was the first to recover and from about 21d.5h. varied irregularly about more or less normal values. *H* and more particularly *V* were slower to rise to normal values and having done so continued to rise to broad peaks with absolute maxima 14809γ and 47219γ at 21d.14h.55m. and 21d.14h.47m. All elements thereafter fell away into enlarged night bays and moderate disturbance continued to 26d. The 27d. and 28d. were quiet.

March (average character figure 0·87).- A "sudden commencement" at 1d.1h.38m. was immediately followed by enlarged night bays on all elements some 165γ deep on *H* and *V* and 22′ deep on *D*. Minor disturbance prevailed for the remainder of 1d., increased to moderate proportions just before midnight and died away during the afternoon of 2d. The 3d. was almost quiet and 4d. only mildly disturbed until evening, when enlarged night bays were recorded, those of *H* and *V* being some 200γ and 430γ deep respectively. The *D* bay was relatively shallow but was marked by a towering peak some 60′ high to a maximum of 11°54′·1 at 4d.22h.22m.

Activity continued on a moderate scale throughout 5d. and decreased a little during 6d. The 7d. and 8d. were only mildly disturbed but moderate activity was renewed during the afternoon of 9d. and developed into a minor storm. Each element first formed enlarged humps followed by deep night bays between 10d.1h. and 6h. A period of erratic variation chiefly characterized by serration then lasted to 19h. when minor maxima on *H* and *V* were immediately followed by deep and extensive multiple bays on all elements. Minima of 13657γ 9°56′·9, and 46591γ were recorded on *H*, *D* and *V* at 11d.1h.7m., 11d.0h.12m. and 11d.1h.19m. to give ranges of 870γ, 2°2′·5 and 506γ. Maxima occurred at widely separated times and were not exceptional. All elements recovered approximately normal values by 11d.9h. although moderate activity continued to midnight.

The period 12d. to 16d. was quiet or only mildly disturbed but night bays were slightly enlarged and activity on a moderate level on 17d. Thereafter only minor disturbance was recorded to 20d. The disturbance increased to moderate intensity on 21d. and at 22d.3h.51m. there was evidence of a sharp onset preceding a larger "sudden commencement" at 22d.5h.40m. This was followed by moderate serration and moderate activity culminating in a further stormy sequence. The first major activity took the form of deep and violently fluctuating bays on all elements between 23d.21h. and 24d.7h. Very intense serration then characterized the traces to 24d.13h. when *H* rose to towering pinnacles, *D* executed a series of rapid oscillations and *V* having risen to a moderate maximum fell into a deep double trough before recovering to a further maximum. After about five hours of relative quiet, further deep and

violently fluctuating bays formed on all elements followed by towering peaks and further broad bays throughout 25d. and until about 9h. on 26d. when activity decreased to moderate levels. Maxima of 15247γ, 13°50′·1 and 47382γ at 24d.15h.57m., 25d.17h.29m. and 25d.23h.15m. and minima of 12819γ, 8°37′·7 and 46021γ at 25d.1h.6m., 24d.2h.20m. and 25d.17h.7m. were recorded during this period to give ranges of 2428γ, 5°12′·4 and 1361γ. Moderate activity with enlarged night bays continued to late on 27d. when further violent disturbance developed. All elements underwent rapid and complicated changes throughout 28d. when maxima of 15247γ, 13°13′·2 and 47476γ and minima of 13617γ, 8°52′·6 and 45861γ were recorded on *H*, *D* and *V* respectively, the *V* minimum at 28d.15h.3m. being the lowest value of the year. The major disturbance died away early on 29d. although all elements continued to fluctuate and serrations were prominent throughout that day. The 30d. was mildly disturbed and enlarged night bays formed on 31d.

April (average character figure 0·73).- Moderate disturbance with enlarged night bays prevailed to 3d. which together with 4d. was only mildly disturbed. The period 5d. to 8d. was again characterized by moderate disturbance and both *H* and *V* formed considerably enlarged afternoon maxima and night bays on 9d. *D* formed an enlarged night bay but had a minimum instead of a maximum during the afternoon. The 10d.-12d. period was quiet or only mildly disturbed but moderate activity with marked serration reappeared on 13d. and reached minor storm proportions on 14d. and 15d., ranges during this period being 500γ, 1°13′·6 and 390γ for *H*, *D* and *V* respectively.

Night bays were enlarged on 16d. but with this exception all elements were quiet or only mildly disturbed to 22d. when a "sudden commencement" at 22d.6h.58m. brought increasing disturbance in its train. This culminated in major storm activity on 23d. which continued vigourously to about 25d.7h. Maxima of 15162γ, 12°58′·6 and 48167γ at 23d.15h.51m., 23d.16h.56m. and 23d.23h.49m. and minima of 12872γ, 7°53′·6 and 46529γ at 23d.23h.38m., 24d.3h.27m. and 24d.3h.48m. were recorded during this period to give ranges of 2290γ, 5°5′·0 and 1638γ on *H*, *D* and *V* respectively. The *V* maximum was the highest value recorded during the year.

The afternoon of 25d. was almost quiet; night bays were enlarged on 26d. and minor activity during the evening of 28d. continued in evidence to the end of the month.

May (average character figure 0·81).- Mild disturbance with enhanced night bays characterized the first four days of the month and 5d. was almost quiet until the evening when considerable activity developed in what appear to be a series of sudden onsets at 5d.21h.52m., 6d.3h.30m., 6d.4h.17m., 6d.7h.55m., 6d.17h.36m. and 6d.22h.28m. The disturbance produced ranges of 435γ, 1°12′·5 and 275γ on *H*, *D* and *V* respectively and there was renewed activity early on 8d. with evidence of further sudden onsets in the already disturbed conditions. Moderate activity with prominent serration characterized 8d. and particularly large maxima were built up during the afternoon of 9d. Night bays although enlarged were not exceptional however. Serration and moderate disturbance continued to 11d. but activity then decreased and all elements remained only mildly disturbed or quiet to 16d. The level of activity increased slightly on 17d. and 18d. but 19d. and the forenoon of 20d. were quiet. Active disturbance returned late on 20d. and for the next five days afternoon maxima and night bays were considerably enlarged to give daily ranges between 200γ and 500γ on *H* and *V* and between 20′ and 45′ on *D*. The 26d. brought a return to moderate disturbance levels but only minor activity was evident during the remainder of the month.

June (average character figure 0·83).- The first three days of the month were quiet but a well marked "sudden commencement" at 4d.6h.12m. was followed by minor disturbance for about twelve hours. Further minor disturbance which was evident on the evening of 5d. continued over 6d. Another "sudden commencement" recorded at 7d.7h.39m. brought considerably increased activity. *H* rose to a mountainous maximum of 14835γ at 7d.16h.45m. and then fell to a broad bay with minimum of 14136γ at 8d.2h.8m. *V* followed a similar course although only ranging through 483γ while *D* executed a series of oscillations on considerably smaller

maxima and minima. After recovering from their broad bays early on 8d. all elements continued to show marked activity and pursue irregular courses throughout 8d. The period 9d. to 11d. was a little quieter although still moderately disturbed; 12d. brought greatly enlarged afternoon maxima and evening minima for *H* and *V*, and moderate or mild disturbance characterized the 13d.-15d. Activity again increased late on 16d. and deep night bays to minima of 13733γ (*H*), 10°6′·9 (*D*) and 46667γ (*V*) formed in the early hours of 17d. Further moderate activity and enlarged night bays were recorded on 17d. and 18d. The record from 19d.12h. to 20d.0h. inclusive was lost and moderate or minor disturbance was recorded from 20d. to 25d. Activity increased somewhat during the next few days and culminated on 29d. in a sharp rapidly fluctuating disturbance with ranges of 563γ, 1°15′·8 and 374γ on *H*, *D* and *V* respectively. The 30d. was quiet.

July (average character figure 0·81).- The month opened quietly and with the exception of moderate disturbance on 3d. quiet or only mildly disturbed conditions prevailed to early on 7d. Moderate activity then developed and afternoon maxima and evening minima on that day were well developed. Bays were again in evidence early on 9d. followed by enlarged afternoon maxima, and similar features characterized 10d. and 11d. Only mild disturbance was recorded on 12d. and 13d. but afternoon maxima on 14d. were again enlarged as were the night bays occurring early on 15d. Serration and minor disturbance prevailed over the remainder of 15d. but moderate activity returned shortly before noon on 16d. A towering peak to 14724γ at 16h.24m. formed on *H* on 18d. followed by a bay to 14181γ at 19d.2h.19m. *D* and *V* followed similar courses but ranges at 49′·4 and 360γ were much smaller. Another but smaller peak formed on *H* on 19d. when afternoon maxima and night bays were again enlarged. The 20d. was almost quiet but moderate disturbance with enhanced maxima and minima characterized the next few days. The 24d. was again almost quiet. Moderate disturbance reappeared on 25d. and violent activity developed suddenly at 26d.18h.44m. *H* and *D* first rose to fluctuating maxima before plunging about midnight, to deep pulsating bays upon which the absolute maximum of the year for *D* (14°2′·7 at 27d.6h.27m.) was superposed and during which the absolute minimum of the year for *H* (12219γ at 27d.6h.40m.) was recorded. *V* followed a more complicated course involving about five deep bays and large peaks. Maxima of 14968γ, 14°2′·7 and 47468γ and minima of 12219γ, 9°5′·5 and 46698γ were recorded during this period and it was 27d.9h. before the major activity died away. Active disturbance continued however throughout 27d. and was renewed early on 28d. when evening maxima and night bays early on 29d. were enlarged. Very intense serration characterized the traces from 29d.5h. and there were again notable evening maxima and night minima on 29d. and 30d. The 31d. was only mildly disturbed.

August (average character figure 0·74).- The opening days of the month were quiet or only mildly disturbed and it was not until 7d. when afternoon maxima were greatly enlarged that any appreciable disturbance occurred. Activity although slightly increased then continued on a minor level to 14d. with the exception of 11d. which was moderately disturbed with enhanced peaks and bays. The 14d. was also moderately disturbed and there was a particularly sharp fluctuation on all elements between 20h. and 22h. when values ranged through 346γ (*H*), 1°22′·1 (*D*) and 264γ (*V*) in about half an hour. Moderate activity with pronounced peaks and bays continued to characterized the next few days but this died down on 18d. and from 18d. to 30d. all elements were calm or only mildly disturbed. The month closed with a minor storm on 31d. when deep night bays on *H* and *V* were followed by broad afternoon maxima. *D* followed a more complicated course and reached a maximum between 5h. and 6h. about the same time as the *H* and *V* minima; ranges were 621γ (*H*), 1°25′·3 (*D*) and 567γ (*V*).

September (average character figure 1·00).- Once again the month opened quietly and only mild disturbance was recorded on the first three days. Night bays were slightly enlarged on 4d. and activity from 4d. to 15d. was on a slightly increased although still moderate scale with the exception of 6d.7h. to 7d.7h. which was exceptionally quiet. A "sudden commencement" at 16d.13h.43m. brought an abrupt increase in activity and introduced a violently stormy spell which prevailed to 20d. Major fluctuations on all elements were almost continuous and are too complicated for detailed description although the general pattern of afternoon maxima and night minima was followed. Some indication of their magnitude is afforded by the *H* ranges 707γ on 16d., 620γ on 17d., 1118γ on 18d. and 1095γ on 19d. The minimum value of *D* for the year, 7°45′·2 was recorded at 18d.4h.3m.

The 20d. was only mildly disturbed with slightly enlarged maxima and minima but another "sudden commencement" at 21d.17h.12m. brought a renewal of the intense stormy activity during which the *H* maximum for the year 1585$1\gamma$ at 22d.13h.18m. was recorded and *H* ranges were $218 2\gamma$ on 22d. and $163 6\gamma$ on 23d. Large scale disturbance died away early on 24d. but intense serration continued well into the afternoon. The 25d. and 26d. were only mildly disturbed but stormy conditions were restored on 27d. which had an *H* range of 618γ and gave way to even stormier conditions on 28d. which was highly disturbed throughout and had a range of 1467γ on *H*. Activity, although still stormy, moderated considerably about 29d.6h. and continued on a high level to the end of the month.

October (average character figure 0·71).- The month opened with strong serration and minor disturbance following the stormy September sequence, and although traces gradually became smoother mild disturbance continued to 4d. Activity increased slightly on 5d. and conditions to 7d. were moderately disturbed. The 8d. was almost quiet but strong serration was evident on 9d. when there were deep though not broad night bays. Minor disturbance then characterized the traces to 11d. The period 12d. to late on 19d. was almost quiet but moderate disturbance then reappeared and night bays were somewhat enlarged. Activity soon died down however and with the exception of small irregular variations quiet conditions were restored from 20d. to 25d. A small "sudden commencement" at 25d.21h.59m. brought an immediate introduction of moderate disturbance which became increasingly active about 26d.20h. when all elements formed deep double troughs separated by towering pinnacles reaching back to about normal values. The violence of the variations decreased about 27d.6h. but active disturbance continued throughout that day. Ranges for the storm were 805γ (*H*), $1^{\circ}39'\cdot0$ (*D*) and 580γ (*V*). The 28d. to 30d. were quiet or only mildly disturbed and moderate activity reappearing early on 31d. brought the month to a close.

November (average character figure 0·67).- The moderate activity evident on 31d. October increased in scale on 1d. November when there were appreciably enlarged maxima and minima, the latter occurring before midnight. Mild disturbance on 2d. persisted, serrations became prominent on 5d. and maxima and minima were again enlarged on 6d. Disturbance became a little more active on 10d. and 11d. when evening humps and night bays were enhanced and a "sudden commencement" was recorded at 11d.11h.27m., but soon returned to its former mild level on 13d.

A large "sudden commencement" at 15d.7h.52m. brought immediate serration but only moderate activity and with the exception of slightly enlarged night bays only mild disturbance was evident from 16d. to late on 19d. Some sharp oscillations occurred during that evening and moderate disturbance characterized the charts to 23d. which was almost quiet. A further large "sudden commencement" at 23d.3h.46m. also brought immediate serration but only moderate activity. By 27d. conditions were quite calm and continued so to the end of the month.

December (average character figure 0·55).- The calm spell at the end of November was interrupted by mild disturbance on 1d. enlarged night bays on 2d. and gave place to minor disturbance on 5d. when serrations became prominent. This activity faded out on 8d. and only mild disturbance was recorded to 10d. Minor activity reappeared late on 10d., persisted over 12d. and died away again on 13d. The 14d. to 16d. was calm and only mild disturbance was evident to 19d. when prominent peaks and troughs formed during the late afternoon on all elements. Calm and mildly disturbed conditions continued to alternate to the end of the year and even well marked "sudden commencements" at 23d.5h.3m. and 25d.19h.13m. failed to produce any major activity.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

7 LERWICK

	JANUARY, factor 1·05				FEBRUARY, factor 1·14				MARCH, factor 1·23			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	<-212	143	213	-380	<-550	-	-	154	<-480	148	208	320
2	87	174	202	171	173	(132)	202	92	97	161	611	362
3	164	206	272	-454	125	206	202	-44	121	113	113	36
4	<-42	<-45	-11	28	210	225	-59	266	-	-	69	130
5	579	<-17	489	401	85	233	215	122	57	167	224	224
6	304	182	95	392	111	111	<-897	111	114	204	167	200
7	>525	143	182	189	138	86	<-342	>804	111	275	176	275
8	231	262	59	-	75	112	119	-138	-	-	-	-
9	-	-	179	-558	82	<-748	75	-845	29	>703	Z±	194
10	-	-	98	123	105	>862	94	150	207	236	257	252
11	-	-	-312	-14	68	124	150	83	262	154	141	133
12	39	<-39	-	-	56	105	151	306	75	117	132	-104
13	-	-	-	190	98	197	181	178	46	121	121	129
14	71	96	148	194	114	122	167	87	92	<-460	134	226
15	163	223	262	390	76	76	76	53	96	113	105	142
16	216	297	223	318	95	80	92	111	121	147	155	147
17	319	426	426	312	92	77	126	88	130	188	126	Z-
18	132	121	107	110	77	116	123	142	134	193	460	197
19	77	89	107	-36	42	220	309	100	71	100	96	42
20	68	46	103	<-21	Z±	Z±	154	208	-	(385)	96	172
21	-3	71	153	93	727	Z±	163	1109	71	167	138	167
22	75	112	107	104	398	199	187	195	88	172	92	147
23	83	83	83	230	153	145	274	348	84	25	-	-
24	86	119	90	-223	>330	307	248	244	-	-	-	-
25	101	72	105	-	276	236	228	370	-	-	-	-
26	-	-	-469	137	139	<-179	>1070	317	84	-46	176	176
27	242	101	145	109	95	Z±	286	330	38	71	138	138
28	83	73	113	113	133	120	160	80	138	305	288	284
29	<-142	98	Z±	240					509	426	238	296
30	121	<-256	<-1094	77					88	121	154	167
31	59	-	-	117					50	134	-	-
(a)	174	149	172	192	157	186	211	242	120	198	185	190
(b)	149	114	115	101	135	128	131	134	97	137	197	180
Mean	(a) 172		(b) 120		(a) 199		(b) 132		(a) 173		(b) 153	

	APRIL, factor 1·26				MAY, factor 1·30				JUNE, factor 1·32			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	295	416	250	624	67	92	154	129	582	428	197	419
2	(203)	207	162	141	67	292	79	179	Z±	184	253	321
3	87	133	87	344	83	83	83	121	265	248	86	150
4	133	249	195	116	88	84	125	121	90	103	150	265
5	116	Z±	161	120	75	59	-	-	300	-56	218	Z±
6	108	385	108	<-236	(126)	138	163	117	90	150	94	218
7	145	-735	107	-37	-	-	117	122	39	-	189	13
8	>392	>483	-	128	80	206	160	214	150	129	378	365
9	120	207	112	78	139	160	155	164	>1338	429	219	283
10	54	70	95	-277	88	160	164	139	275	172	210	142
11	0	49	78	107	118	139	(84)	-	86	245	(<-995)	133
12	33	115	124	165	-	-	(29)	76	159	124	-245	39
13	136	119	161	177	131	160	(93)	110	94	51	43	107
14	124	-169	119	169	>494	190	-68	169	90	129	107	167
15	243	165	54	247	106	(-330)	182	157	107	124	159	176
16	132	115	115	-1240	127	68	127	216	124	142	193	206
17	227	41	87	136	140	140	114	237	69	34	-56	172
18	128	231	119	115	102	102	127	123	129	-146	163	142
19	62	45	165	173	89	76	47	55	-159	-	-	-
20	-	(157)	145	190	81	119	106	13	-	-	(90)	-69
21	128	157	112	190	77	89	30	714	(60)	(137)	159	146
22	78	78	116	198	404	433	535	625	429	403	116	257
23	-190	310	256	586	298	400	234	337	215	103	133	116
24	368	99	-	99	166	183	209	417	468	734	159	223
25	Z±	186	161	294	337	175	141	251	223	150	219	99
26	83	33	83	154	Z±	124	128	213	150	51	69	112
27	129	-	(141)	158	17	158	303	209	82	446	347	558
28	100	95	145	183	115	410	192	354	356	159	519	193
29	-	141	162	162	205	295	346	615	129	163	485	408
30	(125)	(196)	121	(-162)	491	512	124	363	124	(Z±)	137	386
31					98	333	581	483				
(a)	144	172	134	202	157	192	170	243	230	210	196	215
(b)	111	109	129	85	162	182	173	255	240	196	121	212
Mean	(a) 163		(b) 109		(a) 191		(b) 193		(a) 213		(b) 192	

The potential gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used: Z+, indeterminate, positive value; Z-, indeterminate, negative value; Z±, indeterminate, in magnitude and sign.

(a) Mean of all positive readings.

(b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

7 LERWICK

	JULY, factor 1·27				AUGUST, factor 1·25				SEPTEMBER, factor 1·19			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	82	103	167	219	131	89	114	182	-	-	-	-
2	895	261	39	218	157	<-941	424	250	-	-	-	-
3	94	244	278	312	195	216	199	182	-	193	205	330
4	274	124	94	-	127	127	182	207	293	-	-	-
5	308	253	171	175	296	161	195	465	(84)	-	-	(100)
6	103	81	86	163	641	266	-	907	-	-	-	(112)
7	133	81	253	385	422	190	232	350	103	585	398	474
8	146	<-424	351	265	392	342	338	329	397	417	238	238
9	163	167	137	124	<-29	109	173	38	63	(79)	-	127
10	116	146	98	137	160	295	320	253	-	111	(122)	375
11	141	141	-	150	-59	<-1170	211	168	126	118	114	169
12	338	(188)	146	107	155	210	193	252	114	200	(181)	126
13	Z±	337	-346	483	206	130	126	88	20	<227	239	<71
14	Z±	380	120	158	67	84	(96)	122	31	78	168	188
15	107	184	34	145	84	134	96	126	109	137	195	-62
16	209	418	47	303	96	146	297	138	74	128	300	171
17	213	171	192	491	121	159	163	134	155	147	225	167
18	(243)	-	171	269	125	209	209	-	81	(205)	155	159
19	359	376	252	337	-	-	83	121	112	155	Z±	387
20	213	294	-204	324	129	158	116	133	-	108	115	115
21	247	298	107	337	203	145	249	295	88	108	104	38
22	179	153	247	149	232	294	207	207	69	-	(115)	153
23	115	571	166	294	153	194	(149)	252	27	111	>409	>348
24	175	-128	158	319	124	136	318	306	88	<183	-	88
25	208	195	217	204	428	165	-482	Z±	57	(182)	-	-
26	187	255	574	501	172	16	61	-537	-	-	-	550
27	272	145	127	378	196	196	29	205	416	457	374	-
28	127	191	200	140	-33	200	175	126	-	(113)	98	75
29	179	208	127	149	-102	155	98	179	68	83	109	124
30	127	119	106	127	-20	284	199	215	79	113	176	221
31	25	165	165	170	296	-	203	-				
(a)	206	222	173	251	212	178	188	231	121	182	202	204
(b)	205	162	163	249	137	79	191	179	105	157	215	174
Mean	(a) 213		(b) 195		(a) 202		(b) 147		(a) 177		(b) 163	

	OCTOBER, factor 1·07				NOVEMBER, factor 1·00				DECEMBER, factor 0·97			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	-	(124)	-	-	-	-	-	-	-301	73	77	-
2	(34)	224	-	-	-	77	-	191	-	-	-	-703
3	-	-	(164)	481	-	-	-	-	(63)	-	-	(103)
4	78	104	78	112	430	350	350	-	<-316	100	(100)	-
5	108	-163	167	115	-	374	-	-	73	93	110	Z±
6	115	122	144	237	-	-	-183	-28	3	120	169	166
7	126	107	111	126	-	-	-	-	156	106	70	129
8	162	151	144	151	62	65	-	107	Z±	83	143	-
9	107	136	177	243	(31)	58	96	131	-	93	113	>235
10	297	125	224	257	(34)	-	-	-	-	-	(122)	(106)
11	-	143	146	234	-	-	-	-	-	23	30	10
12	146	142	168	142	-	-	-	-	-96	-367	Z±	252
13	146	106	172	168	-	-	(235)	-	-109	Z±	-	Z±
14	113	138	146	120	65	99	>286	205	-	-	-	-
15	105	138	160	196	156	-	-	-	33	69	76	96
16	145	116	-	138	-	166	136	153	63	56	40	89
17	105	112	141	166	98	98	260	-105	13	20	69	33
18	108	112	115	126	-132	-	-	7	-	-	-	129
19	97	130	144	148	88	165	64	162	66	102	182	208
20	169	147	212	194	121	108	162	145	79	168	139	142
21	150	143	154	165	199	-128	-	239	13	109	86	Z±
22	100	118	143	164	-	-	111	195	406	23	56	-
23	110	110	153	-	87	101	-296	-	79	152	-	96
24	-	-	-	213	-	-	282	-	96	129	89	76
25	25	-373	<-57	146	-	-	-	338	122	56	(-314)	-
26	152	170	142	145	(0)	97	-	-	Z±	126	Z±	374
27	138	138	-533	14	97	134	<-1062	-	26	126	-13	66
28	81	109	109	141	-	-	137	-	63	-	99	116
29	-	-	-	-	-439	-	305	-	96	185	132	136
30	-	137	179	280	-	-	-	-	(-268)	20	-	(142)
31	161	-	-	-					70	-	(169)	169
(a)	123	132	152	178	113	161	186	170	84	92	104	137
(b)	125	91	108	156	81	106	174	108	53	108	95	114
Mean	(a) 146		(b) 120		(a) 157		(b) 117		(a) 104		(b) 93	

The factor used for converting the potential at the collector potential gradient in volts per metre in the open is given for each month.

Annual means					
(a)	153	173	173	205
(b)	133	131	151	162
	(a) 176		(b) 144	

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

8 LERWICK

	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non-cyclic change†	No. of days used	Mean
	volts per metre																										v./m.
	0a days only*																										
Jan.	-64	-70	-51	-53	-51	-37	-41	-12	+7	+36	+40	+41	+26	+42	-1	+25	+34	+35	+35	+37	+24	+4	+10	-17	+3	5	227
Feb.	-34	-53	-32	-69	-60	0	+6	+1	-4	-2	-21	+10	+10	+11	+25	+25	+33	+38	+24	+25	+60	+15	+7	-17	+31	5	155
Mar.	-26	-31	-42	-28	-14	-10	-4	+35	+8	-8	-23	-18	-23	-7	+58	+25	+4	+7	+44	+39	+39	+15	-25	-16	+13	7	275
Apr.	-75	-64	-50	-63	-10	+7	+33	+52	+17	-13	-51	-87	-103	-93	-107	-107	-67	+109	+149	+233	+192	+205	-19	-87	+67	2	267
May	-9	-10	-41	-51	-45	-15	+11	+6	-3	-28	-40	-47	-46	-25	-23	-8	+7	+18	+65	+66	+80	+51	+34	+50	-53	13	225
June	-32	-33	-10	+4	-13	-26	-22	+5	-2	-23	-25	-23	-10	+6	-12	+2	+47	+45	+27	+28	+22	+11	+39	-5	+70	9	198
July	+36	+5	-17	+11	+63	+51	+80	+21	+10	-26	-47	-49	-48	-61	-79	-63	-41	-27	-21	+20	+19	+49	+58	+56	+71	8	217
Aug.	-3	+5	-19	-39	-38	-24	-2	-8	-6	-15	-8	-11	+4	+3	0	-3	-3	+1	+6	+9	+34	+37	+43	+35	-19	12	187
Sept.	-27	-33	-35	-27	-18	-15	-19	-19	-20	-9	-15	-15	+3	-5	+13	+25	+1	+33	+43	+45	+34	+43	+19	-5	+41	2	124
Oct.	-14	-13	-14	-14	-17	-21	-18	-20	-18	-18	-18	-17	-6	+2	+4	+11	+22	+37	+36	+24	+17	+29	+24	+4	+25	11	150
Nov.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Dec.	-13	-27	-40	-39	-28	-38	-14	-8	-5	+16	+5	+2	+23	+25	+2	+26	+22	+12	+33	+28	+21	-8	+13	-9	+1	1	74
Year	-24	-29	-32	-33	-21	-12	+1	+5	-1	-8	-18	-19	-15	-9	-11	-4	+5	+28	+40	+50	+49	+41	+18	-1	+23	75	191
Winter	-37	-50	-41	-54	-46	-25	-16	-6	-1	+17	+8	+18	+20	+26	+9	+25	+30	+28	+31	+30	+35	+4	+10	-14	+12	11	152
Equinox	-35	-35	-38	-33	-15	-10	-2	+12	-3	-12	-27	-34	-32	-26	-8	-11	-10	+47	+68	+85	+71	+73	0	-26	+37	22	204
Summer	-2	-8	-22	-19	-8	-3	+17	+6	0	-23	-30	-33	-25	-19	-29	-18	+3	+9	+19	+31	+39	+37	+43	+34	+17	42	207
	1a and 2a days only*																										
Jan.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Feb.	-19	-21	-17	-16	-21	-30	-82	-58	+3	+17	+24	+7	+12	+37	+33	+13	-5	+6	+9	+49	+31	+31	-11	+7	+29	3	80
Mar.	-13	+9	+8	-8	+16	+35	+66	-14	-69	-118	+21	+41	-3	+39	+15	-3	0	+27	-28	+13	+5	+4	-12	-32	+2	3	133
Apr.	-2	-27	-8	-1	-26	+4	-1	-49	-31	+7	+9	+25	-2	+17	+7	+15	+8	+15	+2	+23	+16	+22	-14	-9	+35	8	123
May	-7	+3	-8	-17	+1	+47	+80	+80	+41	-14	-25	-8	-37	-25	-23	-63	-38	-33	+19	+39	+32	-1	-12	-30	+153	9	164
June	+21	+9	+17	-4	-11	+32	-39	+61	-5	-40	-8	+28	+4	+7	+17	-37	-42	-19	-57	-47	+51	+23	+53	-15	-63	6	172
July	+13	+21	+8	-21	-22	-54	-57	-53	-43	-48	-19	-33	-27	+21	-9	+15	+48	+19	+55	+43	+44	+45	+19	+35	+16	10	172
Aug.	-58	-72	-93	-100	-48	-15	+22	-12	-8	-3	+13	+25	+46	+28	+55	+26	+12	+2	+19	+26	+28	+37	+41	+27	-115	4	131
Sept.	-47	-51	-28	+4	-1	-15	+13	+1	+93	+70	+15	-24	-36	-23	+13	+12	-4	+25	+22	+7	-5	-7	+2	-35	+27	4	225
Oct.	-35	-17	-10	-19	-21	-39	-5	+3	+7	-2	+3	+22	+6	+21	+9	+23	+1	-9	+31	+19	+10	+19	-2	-18	-19	3	140
Nov.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Dec.	-29	-11	-17	-28	-5	-49	-26	-26	-21	+1	-13	-10	0	+2	-7	+22	+17	+26	+27	+43	+41	+23	+37	+6	-15	3	106
Year	-18	-16	-15	-21	-14	-8	-3	-7	-3	-13	+2	+7	-4	+12	+11	+2	0	+6	+10	+21	+25	+20	+10	-6	+5	53	145
Winter	-24	-16	-17	-22	-13	-39	-54	-42	-9	+9	+5	-1	+6	+19	+13	+17	+6	+16	+18	+46	+36	+27	+13	+7	+7	6	93
Equinox	-24	-21	-9	-6	-8	-4	+18	-15	0	-11	+12	+16	-9	+13	+11	+12	+1	+15	+7	+15	+7	+9	-7	-23	+11	18	155
Summer	-8	-10	-19	-35	-20	+3	+1	+19	-4	-26	-10	+3	-3	+8	+10	-15	-5	-8	+9	+15	+39	+26	+25	+4	-2	29	160

Winter: January, February, November, December
Equinox: March, April, September, October
Summer: May to August

* For explanation of 0a, 1a, 2a days see p.16, *Observatories' Year Book, 1938*

† See p.10, *Observatories' Year Book, 1938*

9 LERWICK

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	1b	1·5	(1b)	–	1b	1·4	0a	···	1a	0·1	1b	2·3
2	1b	0·3	(1a)	0·2	0a	···	(1a)	(0·2)	1a	2·1	1b	2·1
3	2b	3·9	1b	1·1	1b	1·7	0a	···	0a	···	1b	1·4
4	2c	7·1	2c	5·1	(1b)	–	(1a)	0·7	2b	3·0	0a	···
5	1c	1·3	1b	1·3	0a	···	1c	0·7	(0a)	–	2b	4·6
6	1c	2·5	2b	3·3	1b	0·5	2c	5·5	(0a)	(···)	1b	1·2
7	1b	0·1	2c	5·5	1c	2·6	1b	2·3	(0a)	–	(1b)	–
8	(1b)	–	1b	2·8	(–)	–	(1c)	–	0a	···	0a	···
9	(2b)	–	2b	5·5	2c	5·1	1b	0·4	0a	···	1b	1·6
10	(1a)	–	1c	2·0	2b	4·1	2b	8·3	0a	···	1a	1·5
11	(2b)	–	1b	0·5	1a	0·3	2a	3·4	(0a)	–	(2c)	–
12	(1b)	–	0a	···	1b	3·0	1a	1·8	(1b)	–	2b	5·5
13	(1a)	–	0a	···	1b	1·3	1a	0·8	(1a)	(0·1)	1b	2·9
14	(0a)	(···)	0a	···	1b	0·4	1a	2·3	1c	1·7	0a	···
15	0a	···	1a	0·3	0a	···	(1b)	(1·1)	(2c)	(3·7)	0a	···
16	0a	···	2b	3·1	0a	···	2b	4·0	1a	1·0	0a	···
17	0a	···	1a	1·2	2b	6·4	1b	1·9	(0a)	(···)	2a	3·4
18	0a	···	1a	0·2	0a	···	1b	0·8	0a	···	2a	8·3
19	2b	3·6	1c	2·3	1b	1·9	(1b)	(2·4)	1a	0·3	(1b)	–
20	2b	4·3	2c	3·0	(1b)	–	(1c)	–	1a	2·4	(1b)	–
21	(1a)	–	1c	2·7	1b	1·4	1c	1·8	1a	2·6	(1a)	–
22	0a	···	1b	0·3	0b	···	1b	2·8	0a	···	0a	···
23	1b	0·6	1b	0·3	(1b)	–	2c	3·1	0a	···	1a	0·1
24	2b	5·4	1b	2·3	(–)	–	(1c)	–	0a	···	1a	0·4
25	(0b)	–	0a	···	(–)	–	1b	0·5	0a	···	(0a)	(···)
26	(2c)	–	1c	2·3	2a	3·2	(1a)	1·1	1b	1·2	0a	···
27	1b	0·6	1b	2·1	1a	0·1	(0a)	–	1b	0·9	0a	···
28	1b	2·5	0a	···	0a	···	1a	0·0	1a	0·3	(1b)	(1·5)
29	1c	1·4			0a	···	(1a)	–	0a	···	1a	2·0
30	2c	3·9			0a	···	(1b)	–	0a	···	(1c)	–
31	(1b)	–			(0a)	–			1a	0·3		
Total	33	39·0	29	47·4	22	33·4	32	45·9	17	19·7	26	38·8
No. of days used	31	21	28	27	28	24	30	22	31	14	30	15
Mean	1·06	1·9	1·04	1·8	0·79	1·4	1·07	2·08	0·55	1·41	0·87	2·59

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	(1a)	(0·9)	(0a)	(···)	(–)	–	(1a)	–	(–)	–	(2b)	–
2	1b	1·3	2b	3·9	(–)	–	(1a)	–	(1b)	–	(2c)	–
3	0a	···	0a	···	(1a)	–	(1b)	–	(–)	–	(2c)	–
4	(1b)	–	0a	···	(0a)	–	1b	1·8	(1a)	–	(1c)	–
5	1a	2·3	1b	0·2	(1a)	–	1b	1·7	(0a)	–	(2c)	–
6	0a	···	(1b)	–	(0a)	–	(0a)	(···)	(2a)	–	(1c)	–
7	1a	0·1	0a	···	1a	0·1	(0a)	(···)	(–)	–	1a	0·7
8	1b	2·5	1b	0·5	(1a)	(0·0)	(0a)	(···)	(1a)	–	(–c)	–
9	1a	0·4	2b	5·3	(1a)	–	0a	···	(1a)	–	(1b)	–
10	1a	0·0	(0a)	(···)	(1a)	–	(0a)	(···)	(1a)	–	(1b)	–
11	(1a)	–	2c	8·9	(1a)	–	(0a)	–	(–)	–	(1b)	–
12	(1b)	(0·4)	0a	···	(1a)	–	0a	···	(–)	–	2b	14·6
13	(2c)	–	1a	0·1	2c	3·5	(0a)	(···)	(1c)	–	(1c)	–
14	(2c)	(5·1)	(1a)	(0·1)	1b	1·7	1a	(0·0)	1b	0·5	(1b)	–
15	(1a)	0·1	0a	···	(1b)	–	0a	···	(0a)	–	0a	···
16	(0a)	(···)	1a	0·6	(1b)	(0·5)	(0a)	–	(0a)	–	1a	0·5
17	0a	···	0a	···	(1a)	(0·5)	(0a)	(···)	(2c)	–	2b	3·3
18	(1a)	–	(1b)	–	(1b)	–	(0a)	(···)	(2a)	–	(–)	–
19	1a	0·3	(1a)	–	(1c)	–	0a	···	(1b)	–	1a	0·1
20	1b	2·2	0a	···	(1a)	–	0a	···	1c	1·6	2b	3·4
21	0a	···	0a	···	1a	1·6	1a	0·0	(2c)	–	2c	3·4
22	1a	0·1	0a	···	(1c)	–	0a	···	(1b)	–	(1b)	(1·1)
23	1b	1·0	(0a)	···	(2b)	–	(1a)	–	(2b)	–	(1c)	(1·2)
24	1b	1·1	(1a)	–	(1b)	–	(1b)	–	(1b)	–	(1b)	(0·3)
25	(0a)	(···)	(2b)	–	(1a)	–	1b	2·4	(–)	–	(1b)	–
26	1b	0·9	2b	4·9	(1a)	–	1a	0·1	(2a)	–	(1c)	(2·8)
27	2a	6·2	1b	1·7	(0a)	–	(2b)	–	(2c)	–	(1b)	–
28	(0a)	(···)	1a	0·8	(0a)	–	0b	···	(1a)	–	(0a)	–
29	0a	···	1b	2·5	0a	···	(–)	–	(2c)	–	1b	1·6
30	(0a)	(···)	1b	0·7	(0a)	(···)	(1a)	–	(2b)	–	(2c)	–
31	1a	1·0	(1a)	–			(0a)	–			(1b)	–
Total	25	25·9	24	30·2	24	7·9	15	6·0	36	2·1	37	33·0
No. of days used	31	18	31	13	30	7	31	6	30	2	30	12
Mean	0·81	1·44	0·77	2·32	0·80	1·15	0·48	1·00	1·20	1·05	1·23	2·75

Annual values: Character frequency 0 1 2 — Mean character figure 0·81 (351 days) — Duration: Total 329·3 hr.
No. of days used 99 192 60 — No. of days 181
Mean 1·82 hr.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

10 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	379	375	376	378	375	374	381	387	384	369	364	362	366	370	374	373	368	384	372	364	370	373	373	379	374
2	370	362	364	369	376	381	381	378	376	374	368	361	362	366	365	376	364	367	364	373	377	379	379	379	371
3 *d*	379	380	380	380	382	384	387	384	386	400	397	340	395	357	384	657	700	531	355	120	−39	−257	136	13	330
4 *d*	13	95	13	225	296	325	358	358	328	342	377	373	357	351	357	408	376	390	403	377	331	341	302	342	*310*
5	359	357	346	347	360	370	363	370	369	364	365	368	365	368	371	373	373	374	372	360	360	365	359	360	364
6	352	373	373	371	375	377	378	374	377	372	367	367	368	373	373	371	361	365	368	364	378	375	375	376	371
7	376	375	373	371	373	379	379	379	377	376	373	369	360	362	372	374	367	373	392	360	369	375	371	371	373
8	371	370	371	375	379	376	377	377	374	372	370	368	370	375	375	375	377	377	377	377	377	380	378	377	375
9 *q*	377	375	375	377	381	381	385	383	382	378	375	374	377	383	383	382	383	383	378	373	371	372	374	375	378
10	374	375	375	377	380	384	392	391	391	391	386	383	387	387	387	385	379	373	379	380	381	385	382	383	383
11 *d*	384	385	386	385	385	343	397	391	387	387	374	372	375	374	372	365	375	368	369	374	367	361	378	376	376
12	374	375	377	375	379	380	379	380	380	375	356	353	369	369	368	371	373	374	361	370	365	377	375	375	372
13 *q*	374	375	375	377	379	380	379	377	377	376	375	371	373	376	379	379	380	383	382	373	376	380	380	381	377
14 *q*	380	381	382	382	383	390	385	383	381	380	378	376	373	372	373	374	376	377	379	380	380	378	378	381	379
15	382	383	383	385	389	390	391	387	385	384	384	381	378	376	377	383	388	391	392	394	386	377	370	360	*383*
16	358	364	363	368	375	380	392	391	383	380	379	378	375	373	367	369	369	370	374	377	377	375	378	379	375
17	379	373	374	378	383	392	399	386	372	379	380	380	382	381	376	375	378	367	369	377	378	393	373	365	379
18	371	373	374	373	372	371	376	380	377	363	365	358	357	362	368	374	377	378	377	394	351	356	362	320	368
19	308	331	346	363	370	370	375	375	376	377	373	378	378	378	378	379	381	383	381	383	386	374	374	373	370
20 *q*	369	369	368	375	375	378	378	377	374	371	370	370	374	379	384	384	384	383	381	381	380	378	378	378	377
21 *q*	378	378	378	378	379	379	380	379	377	374	374	372	374	382	383	382	384	387	389	387	382	384	382	373	380
22	370	370	387	373	390	387	393	383	384	384	376	369	361	369	376	376	379	381	382	381	379	377	378	374	378
23	380	374	370	378	383	387	392	387	385	367	360	352	364	369	367	373	374	373	375	380	376	357	343	369	372
24 *d*	374	354	327	370	388	387	388	371	380	357	357	357	362	358	368	360	357	374	365	339	349	373	376	362	365
25	370	366	366	369	375	380	383	377	370	366	361	357	353	357	364	375	358	370	361	370	372	376	378	377	369
26 *d*	377	377	374	379	378	378	378	383	366	349	364	360	360	365	370	371	383	347	358	365	370	375	373	372	370
27	371	370	375	377	370	377	378	378	375	369	365	364	367	370	377	377	378	381	381	378	374	370	375	374	374
28	377	377	377	378	379	381	381	378	374	365	367	368	371	375	375	378	381	385	386	387	381	373	377	379	377
29	381	382	383	386	389	384	391	386	380	373	365	364	367	374	362	372	380	382	381	379	376	379	379	383	378
30	383	380	379	380	385	386	390	389	386	380	373	369	368	370	377	382	386	386	386	386	387	386	390	391	382
31	383	377	377	380	384	386	382	384	384	384	378	375	375	376	381	379	373	375	376	377	378	377	394	378	380
Mean	360	363	360	370	376	378	383	381	377	373	372	367	370	371	374	386	*386*	382	377	367	360	*354*	365	360	371

· Corrections to be applied to all values *H*, −6γ; *D*, −4′·4; *V*, −3γ.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

11 LERWICK (D) — 11° + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	25·2	24·8	23·6	22·8	23·3	23·7	23·4	23·6	25·6	28·2	29·2	31·6	32·6	32·2	33·7	33·7	28·7	31·2	22·9	27·4	23·8	24·5	23·5	20·4	*26·7*
2	19·5	19·4	23·9	25·6	23·6	23·9	24·9	25·0	24·7	24·5	25·6	27·0	28·0	28·6	28·7	28·6	23·8	24·5	27·8	25·4	25·4	24·8	24·9	24·8	25·1
3 *d*	25·6	26·3	26·2	26·9	25·5	24·8	24·8	25·4	25·8	29·6	27·8	21·9	34·9	30·4	30·1	27·8	19·4	32·4	17·0	14·0	14·0	−0·7	3·6	−0·4	22·2
4 *d*	6·7	13·6	13·7	5·6	15·0	23·8	18·9	30·3	32·3	23·4	25·6	25·6	30·7	31·2	32·2	28·4	16·8	28·3	20·5	15·1	20·5	16·6	33·3	21·3	*22·1*
5	22·6	23·6	26·7	27·4	26·5	24·8	26·3	26·7	25·8	25·7	26·6	27·6	26·4	26·7	26·5	25·8	26·5	26·0	25·7	22·3	22·2	21·4	19·9	18·7	24·9
6	25·6	24·4	24·4	24·7	25·7	26·8	25·6	27·1	27·7	28·3	28·4	28·2	28·9	29·7	29·3	27·4	24·8	17·3	26·7	25·4	11·0	22·2	24·5	25·3	25·4
7	25·7	25·7	25·5	25·4	25·9	25·1	24·9	25·1	25·4	25·7	26·6	27·9	28·6	29·9	28·8	29·4	26·4	25·9	11·8	18·0	23·8	24·7	23·2	20·9	25·0
8	24·4	25·8	25·9	25·7	25·6	26·7	26·3	25·2	25·7	26·0	26·5	26·8	27·3	27·7	26·9	26·4	25·8	25·8	24·8	22·7	23·5	25·0	25·0	24·7	25·7
9 *q*	25·5	25·9	25·8	25·5	25·4	25·7	25·5	25·7	25·7	26·1	26·0	27·3	28·2	28·3	27·4	27·5	27·2	28·3	27·7	25·7	25·7	23·3	23·8	24·7	26·2
10	24·8	24·6	24·6	24·7	24·7	26·5	25·0	25·8	25·8	26·6	25·8	26·8	30·3	30·5	29·1	27·6	29·3	28·8	27·7	25·8	25·5	24·8	25·0	24·8	26·5
11 *d*	24·2	20·8	21·6	26·6	26·5	31·8	35·9	29·4	29·6	30·6	27·9	29·8	29·8	30·5	29·0	28·5	26·2	26·8	26·5	25·9	14·8	6·8	22·9	24·4	26·1
12	24·0	25·7	24·8	23·9	23·8	24·9	26·2	26·0	26·3	26·7	27·4	28·7	29·2	29·0	28·3	27·2	25·8	26·5	25·7	20·6	23·8	21·6	24·9	25·4	25·7
13 *q*	25·0	25·0	25·4	26·1	24·4	24·9	25·2	25·1	25·1	25·7	26·6	26·9	28·4	28·4	28·1	27·1	26·4	26·3	26·2	22·0	22·8	22·6	25·4	25·7	25·6
14 *q*	25·7	25·7	25·8	26·1	27·0	25·0	25·2	24·9	25·1	25·7	26·4	27·6	27·7	27·8	27·5	27·3	27·6	27·5	26·4	25·8	24·7	24·5	24·2	24·7	26·1
15	25·2	26·2	26·2	25·9	25·4	25·5	24·9	24·9	24·9	25·8	26·4	26·5	26·4	26·6	26·9	27·7	28·1	28·1	27·9	27·2	26·6	24·3	22·7	21·1	25·9
16	17·0	20·8	25·0	23·9	24·8	25·7	25·9	25·7	24·8	25·4	26·0	26·9	27·5	28·3	27·8	28·9	28·2	27·4	26·8	25·4	24·3	19·4	24·7	24·5	25·2
17	24·0	24·3	26·4	26·3	27·3	26·9	26·4	27·4	26·4	25·7	25·8	25·3	26·4	26·6	26·5	26·1	26·7	22·3	18·5	24·5	27·4	16·1	20·4	23·4	24·9
18	24·9	24·6	25·6	24·8	24·0	24·6	23·6	22·8	23·3	27·0	27·2	28·6	31·4	32·4	30·7	26·6	31·6	28·6	24·5	20·7	19·6	19·9	17·8	13·3	24·9
19	20·5	25·7	14·0	16·2	22·3	25·5	24·5	24·4	23·5	23·9	25·2	26·9	28·4	29·3	28·9	29·7	30·6	31·4	31·3	27·0	22·5	22·4	24·3	21·4	25·0
20 *q*	18·9	20·6	20·6	21·5	21·9	22·7	23·8	24·3	24·4	24·4	25·0	25·8	26·5	26·7	25·7	25·4	25·5	25·4	25·1	24·9	24·7	24·6	24·6	24·6	24·1
21 *q*	24·8	25·1	25·0	25·1	25·2	24·9	24·5	24·3	24·2	25·1	26·3	26·9	26·8	28·3	27·8	27·6	27·6	26·8	26·9	27·6	27·4	25·7	17·1	19·8	25·5
22	22·0	21·7	13·0	15·1	15·9	19·2	22·5	21·9	22·8	26·7	28·8	29·8	29·3	29·5	28·8	27·3	26·4	25·9	26·3	25·8	24·9	24·5	18·4	20·5	23·6
23	22·8	24·6	25·8	23·5	22·4	24·7	25·6	26·4	26·4	25·7	26·9	29·5	32·9	30·2	27·9	26·3	25·3	25·7	25·5	24·6	23·0	16·3	−2·4	15·6	24·0
24 *d*	22·3	25·9	29·1	24·7	18·6	23·7	26·5	31·8	28·6	27·4	27·0	29·9	32·9	25·5	28·4	29·6	21·3	27·6	25·8	8·2	20·2	22·5	18·8	22·9	25·0
25	21·4	23·2	26·6	26·9	25·7	25·7	25·6	25·5	24·4	25·1	25·7	26·8	27·6	25·5	24·5	21·9	23·6	26·9	21·5	25·7	25·3	23·9	22·5	24·4	24·8
26 *d*	24·7	24·1	26·8	26·5	22·6	24·6	27·1	28·1	27·7	29·4	29·5	29·4	28·4	28·4	27·6	25·7	26·4	12·0	24·3	28·2	25·7	25·4	24·4	23·3	25·8
27	24·0	24·0	21·7	19·6	22·9	23·5	24·9	25·4	25·4	24·9	26·1	27·6	28·6	29·2	28·9	27·4	26·8	27·0	26·4	25·6	24·5	21·6	23·7	24·8	25·2
28	25·8	26·0	25·3	24·7	24·5	24·1	24·1	24·3	24·3	24·4	25·5	27·1	29·0	29·8	28·5	27·3	26·9	26·8	26·8	26·8	26·5	21·0	17·7	22·9	25·4
29	24·8	25·7	25·5	24·4	25·7	23·7	23·5	24·0	24·1	25·6	27·4	28·5	27·7	29·8	27·9	27·5	26·7	26·5	26·7	26·4	23·4	24·8	24·2	22·5	25·7
30	24·5	24·8	24·6	25·2	25·0	25·1	24·5	24·8	24·5	24·3	25·9	27·4	28·6	29·1	29·6	28·1	27·2	27·5	26·9	25·0	25·2	25·6	22·9	24·6	25·9
31	23·1	22·9	24·7	24·6	23·9	24·4	25·2	24·9	23·7	25·1	25·9	27·6	29·9	29·8	29·8	28·0	23·3	27·6	27·6	27·5	25·9	25·5	21·1	23·2	25·6
Mean	23·1	23·9	24·0	23·7	23·9	24·9	25·2	25·7	25·6	26·1	26·7	27·6	*29·0*	28·9	28·4	27·5	26·0	26·4	25·0	23·8	23·2	*21·5*	21·5	21·9	25·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

12 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	978	979	977	977	978	976	971	970	967	968	970	979	979	988	995	1003	1012	1004	1039	1028	1009	993	988	973	*988*
2	942	952	969	972	977	976	973	973	974	975	975	977	980	986	991	988	1005	1016	1011	994	984	979	977	976	980
3 *d*	977	977	976	975	974	973	971	971	970	960	961	1019	1100	1019	1013	1098	1080	985	979	962	861	723	776	750	960
4 *d*	643	698	764	762	781	829	886	917	932	955	980	991	999	1026	1033	1054	1057	1059	1032	1027	976	984	848	928	*923*
5	972	982	978	961	969	972	984	986	991	989	984	987	991	990	993	993	992	990	992	998	997	993	984	971	985
6	925	966	978	981	982	982	982	981	973	971	975	977	979	982	990	991	1004	1019	1002	1008	997	976	977	979	982
7	979	980	981	982	981	980	980	980	979	978	981	980	984	985	986	995	1005	1003	1001	995	989	982	981	979	985
8	974	978	980	981	980	979	978	981	981	979	982	983	982	981	982	984	984	985	987	988	986	982	981	979	982
9 *q*	977	976	977	977	978	978	978	979	978	978	979	978	974	974	977	979	982	983	987	995	996	995	991	984	981
10	983	981	979	977	976	974	972	974	975	975	979	978	967	971	972	975	981	987	985	986	987	983	980	974	978
11 *d*	962	957	950	932	922	935	898	932	953	957	974	974	976	981	984	993	994	997	1001	996	999	1001	979	980	968
12	979	973	966	967	966	966	969	972	976	980	986	987	985	985	982	981	981	984	999	1001	998	989	984	980	981
13 *q*	978	977	979	973	971	971	972	974	975	978	981	985	986	983	979	978	976	975	976	984	981	976	976	977	978
14 *q*	978	977	976	974	970	966	969	971	972	974	976	979	981	983	984	982	980	979	978	978	979	980	980	978	977
15	976	974	974	973	971	969	967	968	969	968	972	977	981	982	981	977	974	972	972	973	984	1002	1005	989	977
16	986	982	979	967	978	981	976	975	976	975	975	978	980	982	986	987	988	987	984	982	980	980	978	978	980
17	974	974	970	968	967	968	967	967	970	976	976	983	983	982	984	985	986	1005	1009	1004	993	983	978	983	981
18	980	981	982	984	983	980	975	973	974	973	975	980	984	990	1004	1018	1002	1001	1010	964	985	987	978	956	984
19	945	899	931	945	958	974	978	978	976	971	974	974	975	978	983	984	985	988	996	1002	1009	1002	996	991	975
20 *q*	987	983	982	976	980	981	981	980	980	980	980	979	977	978	979	981	982	983	983	981	980	978	977	977	980
21 *q*	976	977	978	979	980	980	980	981	981	979	977	977	975	973	976	978	979	981	981	985	993	999	1008	1005	982
22	994	992	977	969	956	954	941	949	967	967	968	971	975	975	979	981	983	983	983	986	986	985	982	976	974
23	966	966	967	954	966	969	970	973	976	984	987	990	988	989	994	990	992	990	990	985	988	990	893	915	974
24 *d*	950	939	873	894	926	952	960	965	967	978	982	988	994	1057	1046	1049	1041	997	1011	1035	1019	986	923	904	977
25	937	957	964	963	967	972	975	979	985	987	988	990	991	993	1005	1016	1013	1004	1015	994	990	986	983	982	985
26 *d*	978	972	956	937	945	957	958	964	975	993	986	986	988	986	985	986	987	1026	1026	1023	1003	988	984	983	982
27	982	976	967	960	966	968	970	974	976	978	978	976	974	974	974	974	975	978	979	982	985	987	983	979	976
28	975	975	977	977	975	975	975	975	976	980	979	976	975	976	980	981	979	977	977	977	982	993	988	979	978
29	978	978	978	975	967	967	965	969	974	979	981	979	981	983	989	991	985	982	981	982	986	984	980	975	979
30	973	975	977	976	973	973	971	971	973	973	973	974	973	973	977	979	977	977	977	979	976	978	971	957	974
31	962	967	968	968	968	968	970	970	971	968	970	972	973	973	978	983	995	995	993	994	994	993	977	977	977
Mean	960	962	962	*960*	962	966	967	970	973	975	978	981	985	986	989	995	*995*	993	995	993	986	979	967	965	977

Corrections to be applied to all values *H*, −6γ; *D*, −4′·4; *V*, −3γ.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

13 LERWICK — JANUARY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1	08 15	394	350	16 11	44	15 02	35·2	13·8	18 41	21·4	18 38	1070	960	23 59	110	1, 1, 2, 2, 2, 2, 3, 2	15	1	77·0
2	00 32	387	352	16 33	35	17 52	32·5	16·3	00 27	16·2	17 34	1020	923	00 41	97	3, 1, 1, 1, 1, 3, 2, 0	12	1	77·0
3 *d*	16 02	*1099*	*-749*	21 35	*1848*	12 09	*55·4*	*-49·3*	21 40	*104·7*	15 29	*1239*	611	21 29	*628*	0, 1, 2, 4, 5, 8, 8, 8	36	2	77·0
4 *d*	15 53	585	-159	02 42	744	22 41	43·2	-14·0	00 17	57·2	15 52	1141	*577*	00 26	564	6, 6, 4, 4, 3, 5, 5, 5	38	2	77·0
5	17 08	384	323	02 57	61	02 48	30·2	14·2	23 45	16·0	19 50	1003	955	03 28	48	2, 3, 2, 1, 1, 1, 2, 3	15	1	77·6
6	21 01	400	326	00 16	74	00 12	31·7	-1·3	20 37	33·0	16 56	1026	908	00 28	118	3, 1, 1, 2, 1, 3, 4, 3	18	1	77·6
7	18 47	411	343	19 31	68	13 34	30·8	3·2	18 34	27·6	18 15	1011	978	08 57	33	0, 0, 0, 0, 1, 2, 4, 2	9	1	77·9
8	19 03	384	365	11 27	*19*	13 23	28·0	18·6	19 24	9·4	19 34	993	972	00 19	21	1, 1, 1, 1, 0, 0, 2, 0	6	0	78·0
9 *q*	14 16	390	369	21 52	21	13 13	29·0	22·6	21 07	6·4	20 31	998	973	01 49	25	0, 0, 0, 1, 1, 1, 1, 1	5	0	77·4
10	08 21	394	370	17 24	24	12 36	31·3	23·0	23 48	8·3	19 47	989	966	12 33	23	0, 1, 0, 1, 2, 2, 1, 1	8	0	78·0
11 *d*	06 32	417	311	05 45	106	06 04	47·3	-1·3	21 02	48·6	21 36	1009	876	06 29	133	2, 4, 4, 2, 2, 1, 4, 4	23	1	78·0
12	21 48	386	357	10 57	29	12 48	29·7	16·5	19 09	13·2	18 51	1010	963	05 00	47	2, 2, 1, 2, 1, 1, 3, 2	14	1	77·9
13 *q*	21 02	389	367	19 33	22	12 23	29·3	17·4	19 33	11·9	19 41	990	968	03 51	22	0, 1, 0, 1, 1, 0, 3, 2	8	0	77·0
14 *q*	05 20	393	369	13 50	24	04 40	28·5	23·0	20 49	*5·5*	14 26	984	963	05 13	21	0, 1, 0, 0, 1, 0, 1, 0	3	0	76·0
15	19 43	396	343	23 50	53	17 10	29·0	16·7	24 00	12·3	22 44	1011	967	06 40	44	0, 0, 0, 1, 1, 1, 2, 3	8	0	76·0
16	06 42	400	353	00 25	47	15 48	29·6	13·6	21 23	16·0	16 12	989	962	03 39	27	3, 2, 1, 1, 2, 0, 1, 3	13	1	75·9
17	21 28	417	358	17 52	59	19 50	29·1	7·8	21 52	21·3	17 59	1027	964	06 43	63	1, 2, 2, 2, 1, 3, 3, 3	17	1	75·6
18	18 59	415	300	24 00	115	15 03	34·5	10·2	23 37	24·3	15 07	1041	941	23 23	100	0, 0, 1, 1, 3, 3, 3, 3	14	1	75·3
19	20 46	391	283	00 12	108	01 14	36·8	11·1	02 42	25·7	20 27	1013	888	01 33	125	4, 3, 1, 1, 1, 1, 3, 3	17	1	76·0
20 *q*	16 01	387	364	00 00	23	13 10	27·3	16·1	00 05	11·2	00 00	990	973	03 30	*17*	2, 2, 0, 0, 0, 0, 0, 0	4	0	76·1
21 *q*	22 31	396	369	23 12	27	13 04	29·0	11·3	22 48	17·7	22 24	1017	973	13 30	44	0, 0, 0, 0, 0, 0, 1, 3	4	0	76·5
22	02 22	406	356	12 41	50	13 05	30·7	10·8	02 20	19·9	00 00	999	935	05 02	64	4, 3, 2, 1, 1, 0, 0, 3	14	1	76·9
23	22 19	409	301	22 53	108	12 30	33·8	-24·0	22 20	57·8	21 34	997	841	22 50	156	2, 3, 1, 1, 2, 1, 2, 5	17	1	77·1
24 *d*	13 45	404	304	02 23	100	12 57	37·6	1·2	19 50	36·4	13 59	1088	854	02 33	234	4, 4, 3, 2, 4, 4, 4, 4	29	1	77·1
25	15 05	388	344	16 39	44	03 05	29·7	10·8	15 03	18·9	15 03	1035	1015	00 00	20	3, 2, 1, 1, 3, 4, 3, 1	18	1	77·0
26 *d*	06 00	393	324	17 23	69	09 29	30·0	3·0	17 38	27·0	19 13	1034	931	03 22	103·	2, 2, 3, 2, 1, 4, 3, 1	18	1	77·3
27	03 15	391	361	10 49	30	13 10	29·7	17·2	03 13	12·5	21 30	989	955	03 18	34	2, 2, 1, 0, 0, 0, 1, 2	8	0	77·3
28	19 46	390	360	10 06	30	13 18	31·1	13·3	21 58	17·8	21 20	995	974	13 01	21	1, 0, 0, 1, 0, 0, 1, 3	6	0	77·1
29	06 34	397	356	14 21	41	13 14	31·6	20·9	20 42	10·7	15 19	994	959	04 00	35	0, 1, 1, 1, 2, 1, 2, 1	9	0	77·1
30	22 06	420	362	13 03	58	14 09	30·4	17·2	22 01	13·2	21 57	981	949	23 36	32	1, 1, 0, 1, 1, 1, 1, 3	9	0	77·1
31	22 17	421	366	16 12	55	14 29	32·2	16·5	22 08	15·7	17 14	1000	957	00 00	43	1, 0, 1, 0, 1, 2, 1, 3	9	0	77·1
Mean	- -	427	294	- -	133	- -	32·7	8·9	- -	23·8	- -	1022	924	- -	98	-	-	0·65	77·0

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

14 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	379	379	378	378	380	384	383	382	381	374	371	371	374	378	382	382	378	379	383	382	384	384	381	381	380
2	379	383	369	382	381	381	382	389	387	378	368	361	369	374	378	384	389	387	387	382	379	382	381	374	379
3	370	372	376	378	378	378	379	378	376	371	366	365	362	377	407	400	403	393	400	401	405	395	373	336	381
4	361	366	362	361	365	374	377	376	374	364	355	361	381	374	364	386	379	365	370	372	372	370	368	360	369
5	330	345	340	351	359	357	359	358	357	355	355	356	361	370	374	378	381	380	385	390	385	380	378	388	366
6	380	370	369	370	369	369	367	365	368	369	369	371	368	359	368	372	373	378	380	385	382	381	382	379	373
7 *d*	376	374	371	372	373	374	371	356	352	324	300	412	428	423	535	589	683	712	667	597	358	163	82	-16	*399*
8 *d*	-100	-127	-89	41	32	180	296	337	369	377	381	459	436	460	468	374	420	377	355	321	311	338	356	351	*288*
9	351	352	345	346	345	346	348	346	323	336	358	353	351	348	367	360	355	357	366	382	390	365	357	362	355
10	357	359	354	350	346	324	327	315	342	332	338	352	355	366	394	390	381	377	376	371	369	357	357	357	356
11 *q*	361	358	347	347	349	356	357	356	352	348	345	347	348	342	353	361	361	364	361	364	363	364	364	365	356
12	365	365	365	365	365	364	365	363	359	352	345	343	348	359	368	387	383	371	371	361	364	356	351	343	362
13	354	356	352	348	344	355	352	344	331	326	365	381	395	399	387	369	369	367	366	366	369	369	369	368	363
14 *d*	368	370	370	370	371	371	366	336	309	319	384	380	355	346	348	350	352	368	378	380	387	382	349	356	361
15	360	363	339	319	326	334	352	366	361	356	351	348	355	368	363	370	368	369	372	374	373	371	371	371	358
16	369	370	371	371	371	375	377	378	374	365	360	356	356	358	368	369	374	377	378	378	378	378	380	369	371
17	374	366	370	375	374	365	374	372	368	359	352	348	349	355	362	369	371	375	376	375	375	374	373	374	368
18	376	372	374	374	377	377	380	379	378	366	360	353	351	357	368	378	390	385	390	390	394	379	378	379	375
19 *d*	382	378	375	378	382	385	388	398	381	361	355	351	351	352	363	386	379	405	449	474	649	448	251	354	391
20	364	365	361	359	365	371	374	378	376	369	357	358	358	365	361	368	373	387	382	384	396	251	294	121	352
21 *d*	112	41	252	293	304	292	289	297	322	304	336	374	357	374	521	506	460	404	374	352	360	355	357	354	333
22	352	338	264	297	340	350	363	368	348	336	348	343	347	354	365	354	372	363	371	368	368	380	365	368	351
23	364	370	360	345	342	348	359	352	322	344	333	335	361	374	373	367	365	369	361	370	370	370	369	369	358
24	367	365	366	369	371	371	369	371	369	361	359	344	350	354	365	363	367	374	385	364	369	347	310	360	362
25	355	368	354	342	364	378	374	376	377	368	353	338	349	350	358	360	376	376	374	375	377	375	369	369	365
26 *q*	367	363	365	370	373	373	379	375	373	356	353	348	355	353	357	366	372	374	367	372	376	383	377	374	368
27 *q*	376	374	374	376	378	378	381	380	374	361	353	346	345	351	356	367	372	370	375	378	380	381	381	381	370
28 *q*	385	381	381	383	384	387	387	386	381	370	357	348	349	355	364	370	379	385	387	390	387	386	387	382	377
Mean	341	*337*	340	347	350	357	363	364	360	354	355	361	363	368	384	385	*390*	389	389	386	395	363	350	344	364

Corrections to be applied to all values *H*, −6γ; *D*, −4′·4; *V*, −2γ.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

15 LERWICK (D) — 11° + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	24·3	24·3	24·3	24·1	24·4	24·7	24·4	23·9	24·1	24·6	25·8	26·8	29·1	30·9	30·6	28·8	27·5	26·5	26·6	26·5	25·7	25·0	24·8	24·6	25·9
2	24·6	24·2	25·1	20·9	19·3	20·5	21·5	22·9	23·8	26·3	28·1	29·5	30·9	31·4	29·7	29·0	28·7	27·7	28·6	27·4	26·4	24·7	25·0	22·9	25·8
3	24·0	23·8	23·6	23·6	23·0	22·8	22·9	22·8	22·7	23·7	24·7	26·0	27·3	29·9	33·9	34·4	34·4	30·6	30·1	29·1	29·5	27·9	23·4	24·7	26·6
4	21·7	25·1	25·7	24·7	23·7	24·2	24·0	23·2	22·0	21·6	23·4	26·4	28·9	27·7	27·9	28·5	31·5	27·1	25·6	25·2	24·8	24·2	23·4	18·9	25·0
5	19·0	15·9	15·8	9·8	15·2	20·5	21·6	23·7	22·9	23·7	25·3	27·6	30·0	30·6	27·2	25·7	26·1	26·5	24·8	26·2	22·8	23·4	22·7	19·2	22·8
6	28·9	21·6	22·1	22·4	22·7	22·7	22·7	22·8	23·6	24·8	26·4	29·1	30·6	32·9	29·7	28·3	26·6	25·2	24·6	24·5	24·3	23·2	24·3	25·1	25·4
7 *d*	16·1	23·2	23·7	24·4	23·0	22·6	22·4	25·3	27·6	22·3	−2·4	−17·0	25·7	36·0	35·0	39·1	35·1	34·2	42·8	44·5	11·4	−40·9	28·1	8·8	21·3
8 *d*	−19·2	9·9	−1·5	3·3	−10·2	18·2	24·5	18·9	18·5	16·5	23·8	28·6	31·5	33·1	26·9	23·4	13·6	13·1	22·7	17·9	23·0	23·6	22·6	24·8	*17·0*
9	24·9	24·8	24·4	23·7	23·2	22·6	22·9	20·8	23·7	15·7	23·6	26·6	26·7	25·2	19·7	18·3	20·8	20·8	19·9	19·7	24·0	26·6	28·8	28·3	23·2
10	29·4	31·5	32·0	33·9	36·5	37·3	35·5	21·6	11·6	18·5	15·4	19·2	14·8	12·3	9·7	12·4	15·6	20·9	24·1	25·9	25·5	24·8	24·2	24·1	23·2
11 *q*	25·7	23·5	27·6	28·2	23·9	22·5	22·3	21·6	20·2	20·7	22·5	24·5	27·5	27·8	25·6	25·0	24·3	23·7	24·6	23·9	19·7	23·7	24·4	24·3	24·1
12	24·4	24·7	25·2	25·1	23·1	22·8	22·7	22·6	22·5	22·8	24·7	26·5	29·9	30·3	29·6	29·3	25·5	26·0	26·2	28·1	25·8	19·6	25·8	23·1	25·3
13	24·7	26·8	28·7	29·2	27·6	28·8	30·9	25·6	23·3	14·4	11·0	15·7	14·4	11·2	17·9	24·4	25·7	25·8	25·5	25·4	25·2	25·1	24·7	24·5	23·2
14 *d*	24·2	24·0	23·4	23·5	22·5	22·5	22·7	32·1	19·3	18·8	22·4	25·8	27·6	27·1	25·7	24·7	24·5	25·0	28·5	27·1	24·5	24·8	21·3	21·5	24·3
15	23·7	23·6	24·6	33·5	39·0	34·3	29·6	26·1	22·7	22·7	23·8	25·6	26·8	29·6	29·1	28·7	27·7	26·9	25·7	25·9	24·8	24·4	23·7	23·6	*26·9*
16	23·5	23·6	23·7	23·5	22·9	22·6	22·3	21·8	21·5	21·3	22·6	24·7	26·1	26·7	27·5	27·4	26·8	26·5	27·7	26·4	25·5	24·9	22·0	20·5	24·3
17	26·3	23·8	25·0	24·3	23·7	25·5	23·6	22·3	20·9	20·7	22·4	25·7	27·8	28·6	27·5	26·0	25·3	25·3	25·2	24·5	24·0	23·7	23·3	22·7	24·5
18	24·4	23·6	23·7	23·3	22·7	23·5	23·0	22·7	22·6	22·2	24·0	26·8	27·6	28·9	29·2	28·6	29·2	28·3	28·0	25·3	23·4	23·4	23·3	23·5	25·1
19 *d*	23·6	23·9	23·3	24·5	24·0	23·2	23·7	24·8	23·5	22·4	25·0	29·9	29·6	31·4	31·3	31·8	31·4	32·6	33·0	28·1	29·1	22·5	21·7	23·3	26·6
20	23·6	22·4	22·4	23·7	23·8	23·9	23·7	23·7	23·7	25·8	27·7	28·8	29·4	29·5	27·6	27·2	27·2	27·3	28·6	25·8	22·0	1·2	8·7	−4·0	22·7
21 *d*	−11·2	−6·3	1·6	−0·9	9·7	30·5	28·5	29·7	22·2	31·4	31·6	32·3	30·7	31·6	30·4	26·7	30·6	27·0	23·8	25·7	23·7	25·6	25·1	23·8	21·8
22	22·8	20·8	21·6	14·3	10·6	19·0	22·9	22·3	25·8	27·7	27·6	27·4	26·5	28·4	29·6	26·8	27·5	26·6	25·9	19·2	20·8	17·9	22·5	23·1	23·2
23	24·5	21·9	18·4	19·3	20·5	20·4	24·3	27·6	29·9	34·2	30·4	31·4	26·2	27·9	28·7	23·1	21·5	24·7	11·2	12·2	22·2	22·4	22·7	23·9	23·7
24	23·6	27·6	23·9	22·7	21·7	21·6	22·6	23·0	23·9	25·7	26·3	26·6	28·4	27·6	28·4	27·2	27·1	25·5	24·0	19·6	21·7	18·5	23·2	13·8	23·5
25	22·5	23·3	23·5	30·1	21·7	19·7	23·3	23·0	22·9	25·0	26·4	27·3	31·0	30·8	29·7	25·7	25·0	25·3	25·7	22·5	23·7	23·7	22·6	15·9	24·6
26 *q*	17·3	21·3	23·8	24·2	22·9	23·3	22·7	22·3	21·9	25·8	27·0	27·5	28·5	27·7	26·5	25·7	25·4	24·5	20·9	24·5	24·7	22·7	21·9	23·2	24·1
27 *q*	22·8	23·6	23·6	23·5	23·0	23·9	22·9	21·9	21·5	20·7	22·6	25·7	26·5	26·9	26·7	26·4	25·5	25·6	25·6	25·4	24·7	24·5	23·8	23·9	24·2
28 *q*	23·5	22·6	24·2	24·8	23·9	22·9	22·5	21·7	20·6	20·5	22·4	25·7	28·5	29·5	28·7	27·7	27·4	27·5	26·9	26·6	25·8	24·9	24·2	23·5	24·9
Mean	20·8	22·1	22·3	22·4	21·7	23·8	24·2	23·6	22·5	22·9	23·4	25·0	27·5	*28·3*	27·5	26·8	26·3	25·0	26·0	25·1	23·9	*20·6*	23·2	21·3	24·0

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

16 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	975	977	977	977	975	974	972	971	970	968	968	968	972	976	980	982	982	982	981	981	981	982	982	980	976
2	980	978	980	963	969	969	966	957	961	959	964	971	976	978	982	983	985	989	992	999	1002	996	991	993	978
3	987	984	984	982	982	980	977	976	975	964	967	970	964	955	952	955	970	990	987	982	996	1019	1014	947	977
4	949	955	967	976	968	967	973	967	964	977	979	977	990	1003	1005	1014	1033	1019	997	989	983	982	981	970	983
5	931	914	914	915	919	942	966	971	972	978	977	981	988	990	992	1003	1001	1006	1003	1001	1013	1006	996	990	974
6	971	978	987	989	988	985	984	982	979	977	975	975	979	984	985	984	989	990	988	986	987	985	982	970	982
7 *d*	950	968	971	975	978	982	978	976	963	967	1019	1069	1019	1024	1132	1156	1126	1082	965	1020	955	778	721	571	973
8 *d*	1243	923	781	920	723	883	966	1043	1062	1068	1076	1109	1104	1108	1134	1109	1084	1073	1006	980	946	951	966	977	1010
9	986	990	994	996	998	998	998	1000	1009	1010	1003	999	997	1002	1008	1021	1011	1005	1002	996	990	989	987	987	999
10	990	988	992	995	1004	1014	1023	1039	1051	1040	1035	1022	1017	1034	1033	1032	1022	1010	1002	1000	1002	1005	1002	996	*1015*
11 *q*	988	982	982	981	988	992	994	998	1002	1000	1000	1001	1002	1009	1012	1010	1006	1002	1001	997	999	996	996	996	997
12	995	994	992	987	986	989	988	989	990	990	991	991	994	1001	1013	1030	1044	1035	1030	1023	1008	1012	998	971	1002
13	977	984	990	991	996	984	981	987	1008	1017	1019	1039	1045	1040	1040	1025	1011	1004	1000	996	994	994	994	995	1005
14 *d*	995	995	995	994	992	991	990	998	995	1017	1038	1040	1037	1021	1011	1010	1006	999	996	997	1009	1020	995	994	1006
15	995	980	971	957	859	894	939	961	974	980	981	985	988	989	988	987	988	989	990	989	990	991	989	990	973
16	991	991	992	992	992	990	988	984	985	985	985	985	986	988	988	989	988	988	988	989	989	988	984	985	988
17	978	965	973	982	986	986	977	982	985	984	982	982	983	986	989	991	991	990	989	988	986	984	984	983	984
18	981	978	980	984	985	985	984	983	983	983	981	984	984	984	985	988	989	990	988	995	992	995	989	984	986
19 *d*	981	982	983	983	982	975	974	967	974	981	982	985	989	991	996	999	1002	1000	1104	1136	1030	1071	895	953	996
20	978	986	989	988	988	988	987	986	987	985	984	981	981	981	987	990	991	990	1008	1048	1014	840	799	777	968
21 *d*	778	864	841	791	753	781	812	884	937	958	993	1017	1031	1046	1114	1103	1143	1130	1087	1038	1010	997	995	992	*962*
22	988	967	874	828	840	908	945	964	973	982	983	980	984	986	989	996	1002	1005	1004	1019	1000	985	983	982	965
23	979	939	920	946	956	957	955	964	976	975	989	996	1005	1005	1006	1027	1034	1027	1030	1009	991	990	991	988	986
24	983	974	972	982	985	985	985	982	984	987	989	995	991	986	990	993	989	989	996	1046	1036	985	921	957	987
25	953	963	978	938	914	927	953	970	976	982	989	1000	1000	1005	1003	1003	1003	994	992	995	995	993	993	986	979
26 *q*	980	980	979	976	973	978	979	980	981	983	982	987	990	991	992	989	990	999	1011	1002	995	986	976	976	986
27 *q*	979	985	985	985	984	982	980	982	982	983	985	986	988	987	986	984	989	989	987	986	986	986	986	986	985
28 *q*	983	983	983	982	982	981	981	981	981	981	981	982	981	982	984	983	983	982	982	983	985	986	987	988	983
Mean	972	963	956	957	*947*	957	964	972	977	979	984	989	989	991	999	1001	*1002*	998	994	996	986	974	961	954	978

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −2γ.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

17 LERWICK — FEBRUARY

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1 *q*	15 21	390	367	11 16	*23*	14 10	31·8	23·5	07 22	8·3	16 22	984	966	11 34	18	0,0,0,0,1,2,0,0	3	0	76·9
2	07 09	395	358	11 57	37	12 48	32·2	18·3	06 13	13·9	20 40	1004	954	07 13	50	2,2,2,1,1,0,2,2	12	0	77·0
3	18 12	420	305	23 33	115	15 26	35·5	17·8	23 02	17·7	22 00	1045	923	23 33	122	1,0,0,0,3,2,2,4	12	1	77·0
4	12 28	408	348	14 37	60	16 40	34·2	16·2	23 47	18·0	16 50	1047	935	00 02	112	2,1,1,1,2,3,2,2	14	1	77·0
5	23 48	412	312	00 52	100	13 34	31·6	6·7	03 27	24·9	20 23	1023	899	00 42	134	3,3,2,1,2,3,3,3	20	1	77·0
6	00 23	438	327	00 51	111	00 39	42·3	17·1	00 20	25·2	17 07	991	941	24 00	50	4,0,1,1,2,1,2,3	14	1	76·8
7 *d*	11 18	*1015*	*−689*	*23 03*	*1704*	22 50	*179·4*	−91·9	11 21	*271·3*	11 20	1447	*146*	22 26	1301	3,1,3,7,7,7,8 9	45	2	76·5
8 *d*	00 35	833	456	01 23	377	01 48	94·7	*−130·3*	00 33	225·0	00 37	*1653*	350	01 39	*1303*	9,8,6,6,5,5,5,3	47	2	76·9
9	20 20	398	304	09 08	94	22 14	29·6	15·7	09 57	13·9	15 31	1025	982	22 51	43	1,0,3,3,3,2,2,3	17	1	77·0
10	14 56	412	293	07 03	119	05 01	40·3	6·0	08 07	34·3	08 21	1055	987	02 04	68	2,3,4,2,3,3,2,1	20	1	76·8
11 *q*	17 46	373	336	13 11	37	13 16	29·6	14·6	20 36	15·0	14 38	1015	976	01 24	39	2,2,1,0,2,1,3,1	12	0	77·0
12	15 33	403	331	23 28	72	13 17	31·6	13·0	21 17	18·6	16 15	1048	961	23 11	87	0,1,0,0,2,2,2,3	10	1	77·0
13	13 54	412	308	09 06	104	06 20	31·7	8·8	13 35	22·9	11 54	1048	970	00 05	78	2,2,3,4,3,2,1,0	17	1	76·6
14 *d*	17 38	437	284	08 03	153	07 52	45·3	13·7	08 42	31·6	10 53	1061	978	08 18	83	0,1,4 4,2,4,3,3	21	1	77·3
15	07 37	379	272	03 56	107	04 19	49·6	18·2	02 02	31·4	00 54	999	828	04 42	171	3,5,3,1,2,2,1,0	17	1	78·3
16	22 57	391	348	12 32	43	14 53	28·5	14·7	23 04	13·8	03 53	994	974	23 06	20	0,0,0,1,2,1,1,2	8	0	78·9
17	01 01	384	342	12 01	42	00 45	35·5	19·1	01 17	16·4	16 27	993	933	01 05	60	3,2,2,1,1,0,0,0	9	0	78·4
18	20 43	404	345	12 00	59	16 24	30·3	17·7	20 42	12·6	19 31	999	970	01 04	29	2,1,1,1,1,2,3,1	12	1	78·2
19 *d*	20 36	714	145	22 24	569	20 08	45·2	−3·9	22 03	49·1	19 05	1176	799	22 11	377	1,2,3,2,2,3,6,7	26	2	78·2
20	20 06	457	25	23 26	432	21 04	50·6	−30·5	21 38	81·1	20 07	1095	715	22 28	380	2,2,2,1,2,2,5,6	22	2	78·0
21 *d*	14 55	815	−36	01 11	851	06 06	45·5	−22·0	00 57	67·5	14 47	1221	729	00 01	492	6,5,5,4,7,6,5,1	39	2	77·0
22	21 43	389	199	02 55	190	14 32	32·5	6·8	04 32	25·7	19 16	1032	974	02 54	58	5,5,3,2,2,2,3,2	24	1	76·1
23	12 46	388	309	08 35	79	09 18	36·5	−3·3	18 46	39·8	18 38	1043	914	02 28	129	3,2,3,3,3,3,4,1	22	1	75·2
24	18 41	390	274	22 23	116	22 09	37·6	10·5	23 25	27·1	20 14	1061	894	22 16	167	2,1,1,2,1,2,3,4	16	1	74·2
25	06 04	386	330	11 16	56	12 57	32·3	7·8	23 42	24·5	16 01	1007	911	04 51	96	3,3,3,2,2,2,2,2	19	1	74·1
26 *q*	21 52	400	347	11 09	53	12 19	28·8	13·0	00 00	15·8	18 43	1012	969	04 11	43	3,1,0,1,1,2,2,2	12	0	74·0
27 *q*	22 13	386	342	11 52	44	13 00	27·4	20·7	09 15	*6·7*	16 58	991	976	00 20	15	1,0,1,1,0,1,0,0	4	0	73·5
28 *q*	19 42	393	344	11 57	49	13 54	29·9	19·7	09 02	10·2	23 46	990	977	00 55	*13*	2,1,1,1,1,1,0,1	8	0	73·2
Mean	− −	465	258	− −	207	− −	42·8	1·3	− −	41·5	− −	1074	876	− −	198	−	−	0·89	76·6

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

18 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	383	389	390	325	295	378	378	347	319	342	357	343	343	356	359	365	374	374	378	379	375	378	381	370	362
2	361	348	326	354	352	327	361	373	360	352	360	353	357	358	363	365	364	367	370	374	374	373	371	374	360
3 *q*	370	371	371	370	369	369	373	373	367	358	358	352	352	361	364	369	370	370	383	381	378	378	376	374	369
4	363	374	370	373	376	387	384	369	351	347	335	323	340	358	387	387	377	377	391	390	386	294	254	272	357
5	212	356	356	341	348	361	357	361	360	339	338	322	343	381	436	424	411	379	367	373	365	361	369	365	359
6	361	354	331	344	364	356	347	347	343	335	335	323	329	356	374	387	384	373	386	377	370	375	375	372	358
7	368	367	370	365	366	370	369	357	344	328	317	324	337	343	349	361	377	373	376	368	369	380	371	374	359
8	370	370	370	371	374	373	369	364	358	348	342	339	347	360	366	369	377	376	379	383	377	377	371	369	367
9	371	372	373	372	374	375	373	373	366	356	351	345	351	364	401	405	425	406	380	402	381	363	365	360	375
10 *d*	354	338	209	283	340	382	381	383	374	369	356	360	368	416	424	406	410	386	382	425	389	171	10	−45	328
11	123	−19	291	315	271	319	323	338	345	351	342	352	366	380	365	392	381	383	390	403	372	373	374	365	329
12 *q*	358	363	365	366	364	364	360	360	352	348	346	348	352	360	364	365	365	365	371	374	373	374	374	373	363
13 *q*	373	373	373	373	370	374	369	367	357	353	348	348	351	356	363	363	371	382	372	377	375	374	375	374	367
14 *q*	377	377	373	369	369	369	371	370	361	351	340	347	347	357	361	369	373	378	382	373	378	380	381	381	368
15	384	378	375	377	378	378	377	373	367	331	326	334	339	357	351	352	369	369	375	381	385	391	377	382	367
16 *q*	378	377	377	377	377	377	374	373	365	349	343	342	347	355	361	373	378	374	378	383	384	387	388	382	371
17	390	385	348	366	391	396	387	387	374	361	351	355	339	355	356	374	390	383	374	382	374	370	373	373	372
18	373	377	376	382	381	383	384	376	369	351	349	355	361	367	365	369	370	381	371	378	382	386	383	382	373
19	377	374	374	370	374	378	380	376	367	361	351	352	352	361	365	375	381	379	390	391	399	400	395	396	*376*
20	397	390	383	384	389	390	387	382	373	361	354	353	334	357	369	369	373	378	381	382	388	384	382	375	376
21	378	382	378	375	392	391	389	381	370	360	348	326	321	343	348	367	379	373	380	382	383	384	383	382	371
22 *d*	382	381	380	382	383	387	395	326	323	339	335	342	317	360	335	367	369	383	396	383	384	387	385	394	367
23	360	354	373	379	379	380	382	374	363	351	342	339	351	365	374	391	390	397	430	397	393	386	346	195	366
24 *d*	112	−120	−32	−43	117	356	358	355	344	335	339	361	369	445	603	841	580	345	332	322	339	334	326	265	316
25 *d*	156	−10	34	73	139	241	155	134	194	190	285	439	543	601	814	738	688	481	253	436	281	−115	29	40	*284*
26	−21	34	150	132	156	181	189	255	282	300	324	352	357	378	408	399	421	436	417	403	332	336	320	296	285
27	288	208	251	308	303	329	348	343	339	326	321	313	322	358	381	429	401	357	361	382	383	351	218	322	331
28 *d*	302	213	155	160	264	257	334	307	128	315	288	475	68	106	233	768	668	552	547	283	156	200	106	145	293
29	122	191	196	259	282	297	296	296	294	287	297	300	308	304	291	317	341	338	348	348	349	348	347	337	295
30	336	335	326	335	345	348	350	347	339	331	332	326	326	335	340	347	347	359	357	365	368	368	365	360	366
31	360	357	352	352	352	358	349	348	343	311	300	315	314	316	330	352	352	358	361	371	376	378	326	252	341
Mean	317	*301*	312	319	330	353	353	349	338	337	336	347	340	360	384	*415*	405	385	379	379	365	346	329	321	350

Corrections to be applied to all values *H*, −6γ; *D*, −4′·4; *V*, −1γ.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

19 LERWICK (D) — 11° + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	23·2	23·6	17·5	12·0	12·1	12·5	17·4	19·5	20·8	27·2	27·1	28·3	28·7	27·6	25·7	24·5	23·1	25·4	25·7	24·6	24·1	24·6	24·2	23·6	22·6
2	24·9	13·9	14·7	20·0	18·9	21·2	19·1	18·2	19·0	18·7	22·5	25·7	28·9	28·3	27·7	26·1	24·2	24·5	24·3	23·8	23·7	23·6	23·7	23·8	22·5
3 *q*	23·9	23·6	23·3	22·7	22·2	21·7	21·2	21·2	21·2	22·1	24·2	26·0	27·2	27·5	25·7	25·5	24·7	24·7	25·0	25·8	25·3	21·0	23·2	23·9	23·9
4	24·7	20·4	19·4	18·9	21·7	17·6	19·8	19·0	19·1	19·6	23·4	27·5	30·9	31·8	35·4	35·5	34·5	29·8	26·7	27·3	19·7	14·5	15·4	9·9	23·4
5	9·4	17·0	18·5	17·9	20·1	16·8	18·3	18·1	19·3	20·8	22·9	33·5	35·0	36·1	33·0	35·4	27·3	24·8	25·6	23·9	21·1	22·0	23·5	22·6	23·5
6	19·9	21·4	19·3	19·8	19·4	18·8	19·7	18·8	20·9	22·9	26·8	31·5	33·3	35·5	33·7	28·8	27·7	24·3	19·7	22·4	21·8	24·1	21·0	20·7	23·8
7	21·8	21·4	19·8	18·7	18·6	19·3	17·9	17·7	18·9	23·0	24·0	29·5	33·3	31·7	31·1	28·7	27·0	24·3	21·9	21·1	21·4	19·8	23·3	24·3	23·3
8	24·4	23·4	23·0	22·7	22·6	21·8	21·5	20·2	20·0	20·9	23·0	26·8	30·1	32·4	32·0	29·5	28·1	26·3	24·7	25·8	24·4	20·1	23·9	23·6	24·6
9	23·7	23·1	22·4	21·1	19·8	19·4	19·7	19·2	19·8	21·7	24·1	26·0	29·2	31·8	36·8	39·7	40·8	39·0	30·8	19·2	14·2	13·4	16·3	18·4	24·6
10 *d*	21·4	25·9	24·0	12·4	23·0	21·2	19·6	22·8	20·0	25·7	23·7	25·4	27·6	31·4	36·8	35·2	31·4	26·1	26·7	26·2	0·7	15·1	24·6	17·8	23·5
11	−9·0	19·2	15·0	22·1	25·1	23·3	24·1	23·8	22·9	21·3	21·6	26·2	29·2	26·9	26·4	27·8	21·9	22·4	22·0	16·5	25·0	24·8	23·0	17·3	21·6
12 *q*	22·9	23·8	23·3	22·9	23·2	22·6	22·4	21·5	21·0	22·8	24·6	26·5	26·5	26·6	25·2	23·8	22·8	23·3	23·8	23·8	24·3	24·5	24·5	24·5	23·8
13 *q*	24·1	24·1	23·2	23·2	23·3	23·1	21·3	19·5	19·7	21·5	23·1	27·0	27·8	28·2	26·9	24·7	24·2	22·3	18·9	22·9	23·9	22·7	22·7	24·0	23·4
14 *q*	24·3	24·2	24·0	22·9	21·9	21·5	20·6	19·1	19·6	22·0	24·3	27·1	29·4	30·0	27·4	26·4	24·6	23·2	19·2	20·0	23·3	23·8	23·7	23·8	23·6
15	23·9	23·9	23·3	22·9	22·2	21·5	20·9	19·7	19·3	24·3	26·8	30·2	33·4	31·6	31·6	27·5	24·2	23·8	22·3	18·1	20·3	20·4	22·7	24·0	24·1
16 *q*	24·1	23·4	22·9	22·8	22·4	22·0	21·1	20·3	19·4	20·4	23·5	27·5	30·7	31·5	30·2	28·4	26·9	26·4	26·6	25·8	25·5	24·9	21·4	20·8	24·5
17	22·7	20·6	18·9	24·6	19·5	21·2	25·6	22·9	24·4	23·0	25·3	29·9	30·4	28·7	30·5	29·8	25·9	19·0	27·4	25·6	14·3	15·7	23·8	23·6	23·9
18	25·4	22·7	24·7	23·2	22·2	22·4	22·0	23·5	22·8	23·5	26·2	27·9	29·9	30·9	28·7	27·4	26·4	25·7	23·3	25·5	24·7	24·2	23·9	23·5	25·0
19	23·5	23·4	22·7	22·7	22·8	21·7	21·6	21·4	20·9	21·9	23·0	25·0	26·7	27·6	26·8	26·4	25·7	24·8	25·6	26·4	26·6	24·8	20·8	18·0	23·8
20	18·8	20·4	21·7	22·2	22·1	22·5	22·3	21·5	20·0	21·9	24·8	31·3	31·5	33·4	32·8	30·5	27·5	26·4	25·1	19·6	19·6	25·4	24·4	24·8	24·6
21	25·7	24·0	23·6	27·5	21·7	20·8	19·2	19·9	19·7	19·3	22·0	26·8	30·4	34·5	31·9	30·5	28·4	26·1	25·7	25·5	25·6	24·9	24·2	23·8	25·1
22 *d*	23·7	23·3	23·0	23·1	22·6	22·0	19·8	21·8	31·3	27·7	24·3	29·4	29·9	33·9	30·3	28·3	26·8	26·9	25·1	25·5	25·7	25·5	24·9	25·6	*25·9*
23	19·1	21·2	20·3	21·5	20·5	20·4	19·3	18·9	19·8	22·2	23·4	27·0	30·5	31·8	31·7	28·1	28·2	28·0	17·9	26·5	25·6	16·4	11·0	−15·7	21·4
24 *d*	−19·3	−16·4	−5·5	−25·1	1·7	16·4	17·0	19·5	23·0	26·4	27·8	27·8	28·6	28·4	26·7	22·2	33·3	26·3	24·5	24·4	23·3	22·4	25·4	15·5	16·4
25 *d*	11·8	−25·8	12·6	−6·3	−0·5	28·9	37·0	32·9	14·0	15·5	13·4	5·8	14·9	24·7	18·3	35·7	43·7	67·6	17·0	7·0	24·9	−5·5	6·1	−9·1	16·0
26	−11·3	−2·6	−9·2	−5·5	−1·2	16·2	10·9	14·0	18·8	18·5	17·5	25·9	30·5	33·3	34·0	33·3	33·8	29·2	25·6	20·0	16·0	18·9	22·2	15·2	16·8
27	12·9	16·9	19·9	12·2	19·5	22·7	20·6	19·7	18·7	20·5	24·2	28·8	33·1	36·7	38·8	30·0	31·8	29·2	26·7	26·5	26·2	26·3	21·7	16·6	24·2
28 *d*	16·5	2·4	−13·5	8·2	10·5	22·7	16·1	11·4	6·8	33·6	34·3	0·2	−38·8	−36·0	9·1	50·4	19·8	26·3	29·9	1·0	14·7	29·9	28·5	16·2	*12·5*
29	11·6	23·6	21·2	19·8	20·9	17·3	15·7	15·7	16·1	21·2	23·4	26·4	32·1	31·7	27·7	26·4	25·5	22·8	22·1	21·4	20·9	20·1	22·6	23·7	22·1
30	23·7	21·7	22·7	22·7	21·3	20·6	18·6	16·6	17·4	20·0	22·0	25·6	28·1	28·6	27·7	26·3	24·0	23·0	23·1	23·5	23·6	19·2	21·5	21·6	22·6
31	22·7	21·5	21·5	21·4	20·9	19·2	22·2	19·4	18·1	20·7	23·9	26·8	30·0	30·6	28·6	28·6	26·2	24·2	23·0	23·3	23·3	19·7	10·1	4·8	22·1
Mean	17·9	17·7	18·0	*17·3*	18·7	20·6	20·4	19·9	19·8	22·3	23·9	26·1	27·4	28·6	29·3	29·7	27·7	27·0	24·1	22·2	21·7	20·9	21·6	18·4	22·5

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

20 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	988	983	966	932	850	928	954	964	958	952	965	969	980	985	987	994	996	995	993	991	991	992	996	994	971
2	961	945	918	954	958	949	936	957	974	978	976	977	982	988	994	992	992	991	989	988	987	986	987	989	973
3 *q*	990	991	991	991	991	989	986	985	984	985	985	984	983	985	990	990	988	988	987	988	990	993	987	987	988
4	982	959	980	985	977	975	981	983	988	982	982	986	981	987	997	1024	1044	1046	1029	1038	1046	993	813	857	984
5	841	923	972	956	954	968	971	976	985	993	996	1007	1011	1034	1074	1081	1095	1060	1020	1007	1014	1005	985	955	995
6	958	966	937	918	958	968	982	984	992	991	993	999	1003	999	1006	1011	1011	1014	1016	1016	1017	1002	953	961	986
7	981	977	962	962	977	983	986	989	988	987	985	985	999	1000	990	988	995	1007	1009	1016	1010	988	985	981	988
8	978	977	985	988	990	992	992	992	992	989	987	984	979	981	986	990	993	1000	1000	999	1003	998	993	992	990
9	988	989	988	989	988	988	989	988	986	985	983	984	984	980	984	1000	1032	1099	1071	1055	1044	994	977	960	1001
10 *d*	963	931	739	774	840	925	974	980	990	990	998	996	996	1012	1027	1063	1058	1044	1017	1018	1037	858	866	744	952
11	684	702	839	909	902	920	960	988	1000	1017	1026	1025	1028	1036	1020	1009	1030	1021	1015	998	996	996	982	967	961
12 *q*	980	987	991	991	992	993	993	995	997	999	995	992	990	989	992	995	996	995	994	995	994	994	995	995	993
13 *q*	994	992	993	991	989	987	989	993	995	994	993	989	992	994	994	993	990	1001	1014	1004	1000	996	994	992	994
14 *q*	989	985	987	990	989	989	989	989	991	990	990	986	983	984	995	994	996	997	1001	1007	995	991	989	987	991
15	983	987	991	991	991	990	990	990	989	992	988	997	1006	1015	1010	1015	1014	1003	999	996	988	975	978	980	994
16 *q*	982	989	990	990	990	989	989	989	989	987	982	976	976	979	987	996	997	995	991	989	990	989	983	984	987
17	987	984	975	946	954	970	973	969	974	978	981	984	1003	1011	1008	1011	1029	1052	1025	1003	1012	1011	991	983	992
18	976	980	983	975	982	983	983	983	978	980	977	976	980	987	992	996	998	1007	1014	1003	995	988	986	985	987
19	988	990	990	991	990	990	989	990	991	986	982	981	984	986	990	993	994	995	991	991	988	989	987	971	988
20	970	978	984	988	987	987	988	988	988	982	981	978	981	984	994	1005	1009	1004	1004	1004	990	984	977	962	987
21	966	967	977	960	954	967	973	982	987	987	983	982	984	981	982	983	996	1003	996	992	990	987	985	985	981
22 *d*	985	985	985	987	987	986	983	998	972	966	983	988	995	1004	1016	1008	997	988	1004	1017	1003	988	984	966	991
23	968	946	950	972	983	987	988	989	988	984	983	978	977	979	990	1005	1007	1009	999	1003	1020	997	936	803	977
24 *d*	575	900	713	1062	841	920	995	1004	1002	1017	1051	1068	1081	1125	1164	911	1010	1088	1050	1037	1035	1019	954	878	979
25 *d*	769	770	488	529	704	726	824	870	968	1062	1090	1089	1113	1086	762	532	700	716	894	999	1002	900	795	963	848
26	706	896	971	943	959	925	911	957	986	1016	1025	1018	1022	1038	1058	1079	1094	1102	1092	1070	973	997	993	958	991
27	937	924	889	903	939	941	977	997	1006	1009	1013	1021	1024	1029	1052	1088	1077	1051	1029	1024	1031	1015	907	894	991
28 *d*	925	882	847	908	809	841	964	1001	1003	812	947	916	640	536	418	311	764	913	1037	844	747	1017	975	726	*824*
29	812	927	968	1014	1015	1030	1040	1042	1045	1036	1035	1040	1035	1046	1044	1040	1040	1042	1041	1040	1041	1017	991	1002	*1016*
30	998	1009	1011	1013	1015	1017	1018	1017	1017	1016	1014	1014	1014	1015	1015	1018	1019	1018	1014	1014	1016	1017	1010	1013	1014
31	1009	1011	1014	1010	1006	1002	1004	1000	1006	1017	1019	1030	1027	1021	1016	1016	1013	1011	1009	1009	1004	974	866	840	997
Mean	929	949	935	952	950	961	976	985	991	989	996	997	991	993	985	972	999	1008	*1011*	1005	998	989	961	944	978

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −1γ.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

21 LERWICK — MARCH

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	01 40	417	199	04 09	218	09 15	34·6	2·5	03 33	32·1	23 28	1003	813	04 09	190	3,5,3,3,2,2,0,2	20	1	73·5
2	00 22	366	266	00 45	100	00 37	43·8	6·8	00 19	37·0	14 59	996	899	02 29	97	5,3,3,3,2,1,0,0	17	1	74·0
3 *q*	18 27	386	348	12 12	38	13 37	28·7	17·9	21 15	10·8	20 59	998	983	22 35	*15*	0,0,1,0,1,1,2,2	7	0	74·8
4	20 30	408	106	22 24	302	22 22	58·5	1·7	22 31	56·8	20 34	1069	734	22 20	335	3,2,2,2,3,3,3,6	24	1	75·3
5	14 33	455	42	00 18	413	13 37	40·8	−1·3	00 42	42·1	16 37	1160	819	00 18	341	6,3,2,3,4,4,2,3	21	1	75·8
6	15 04	401	310	02 47	91	13 46	36·8	15·6	07 46	21·2	17 59	1080	892	03 15	188	3,4,2,2,3,3,2,4	23	1	76·2
7	21 34	391	314	10 08	77	12 51	34·9	14·1	21 00	20·8	19 59	1021	957	02 54	64	2,2,2,2,2,2,3,3	18	0	76·3
8	21 09	397	338	11 31	59	13 46	33·1	15·3	21 08	17·8	20 55	1008	973	01 16	35	1,0,0,1,1,1,2,3	9	0	76·0
9	16 54	460	348	12 00	112	16 32	43·9	4·0	19 52	39·9	17 43	1120	956	23 30	164	0,0,0,0,3,4,4,3	14	1	75·7
10 *d*	20 04	533	−318	22 51	851	22 50	63·8	−23·3	23 29	87·1	20 15	1098	608	23 40	490	6,6,4,3,4,3,5,8	39	2	75·5
11	19 27	429	−337	01 17	766	00 00	40·5	−58·7	00 12	99·2	13 32	1040	592	01 19	448	8,4,3,2,3,3,3,3	29	1	76·2
12 *q*	19 06	377	344	10 08	*33*	12 00	28·2	20·2	07 39	*8·0*	08 34	1000	975	00 09	25	1,0,1,1,1,1,1,0	6	0	76·3
13 *q*	17 26	393	339	10 53	54	13 12	30·5	17·6	18 42	12·9	18 37	1017	985	04 28	32	0,1,1,1,1,2,2,1	9	0	76·2
14 *q*	18 17	387	338	10 29	49	13 37	30·8	12·9	18 52	17·9	19 16	1013	980	01 26	33	1,0,0,1,1,1,3,0	7	0	76·2
15	21 16	401	318	10 22	83	12 46	35·5	13·5	19 14	22·0	15 50	1019	970	21 50	49	1,0,2,2,2,2,3,2	14	1	76·1
16 *q*	22 21	397	340	11 37	57	13 41	32·0	16·7	22 55	15·3	16 43	998	976	22 35	22	1,0,1,1,2,1,1,2	9	0	76·0
17	05 37	406	293	02 59	113	13 22	33·7	−1·0	20 58	34·7	17 01	1063	934	04 01	129	4,4,2,2,2,3,4,4	25	1	76·1
18	17 25	389	343	09 51	46	13 17	33·2	20·5	18 25	12·7	18 27	1017	970	00 51	47	2,2,2,2,2,2,2,0	14	1	76·0
19	21 13	408	347	10 25	61	13 47	28·3	16·7	23 20	11·6	17 23	997	966	23 12	31	0,1,1,1,1,1,2,2	9	0	76·9
20	20 12	404	322	12 11	82	13 21	35·7	15·3	20 09	20·4	16 05	1012	956	23 05	56	2,1,1,3,3,2,3,2	17	1	78·1
21	04 42	403	309	12 29	94	13 21	36·7	17·8	06 35	18·9	17 09	1006	944	03 53	62	2,3,2,2,3,2,1,0	15	1	78·5
22 *d*	23 05	424	270	08 04	154	08 36	41·1	15·9	09 09	25·2	14 10	1026	949	08 55	77	0,2,4,4,3,2,2,3	20	1	78·9
23	18 28	453	−112	23 45	565	13 48	33·2	−62·4	23 44	95·6	20 36	1025	666	23 39	359	3,2,2,1,2,2,4,7	23	1	79·1
24 *d*	15 57	1253	−900	01 03	2153	02 10	64·3	*−137·9*	02 20	202·2	03 51	1337	290	02 17	1047	9,7,5,3,8,8,3,5	48	2	79·0
25 *d*	14 33	1131	*−1175*	01 04	*2306*	17 29	*177·8*	−119·6	03 45	*297·4*	23 15	1383	22	17 07	1361	9,8,6,6,8,9,8,8	62	2	78·7
26	17 57	456	−373	00 52	829	16 20	36·2	−40·8	00 36	77·0	02 00	1176	710	00 37	466	7,6,5,4,3,3,5,4	37	2	78·6
27	15 43	481	114	01 59	367	14 39	40·4	6·8	03 46	33·6	15 40	1115	838	23 07	277	5,4,3,2,3,5,2,5	29	1	79·1
28 *d*	15 25	*1253*	−383	12 21	1636	22 02	138·0	−127·4	19 47	265·4	22 06	*1477*	*−139*	15 04	*1616*	6,7,8,9,8,8,8,8	62	2	79·3
29	11 18	378	77	00 08	301	01 52	36·5	0·9	00 19	35·6	13 44	1068	781	00 21	287	6,4,4,4,4,3,3,3	31	1	80·0
30	22 15	386	315	02 05	71	13 44	29·5	13·4	21 28	16·1	16 20	1021	991	00 26	30	2,2,1,2,1,1,1,3	13	0	80·3
31	21 11	391	228	23 53	163	13 06	31·6	−3·9	22 53	35·5	12 33	1035	842	23 36	193	1,1,3,3,2,1,2,5	18	1	81·2
Mean	− −	491	96	− −	395	− −	45·6	−10·0	− −	55·6	− −	1077	801	− −	276	−	−	0·87	77·1

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

22 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	296	327	249	343	357	360	352	336	327	335	330	317	327	335	348	357	367	374	384	391	373	348	330	335	342
2	337	328	352	343	339	330	352	345	341	322	306	330	316	369	365	378	390	381	371	374	382	324	345	364	349
3	361	357	357	360	360	361	361	350	339	325	321	316	322	339	360	375	382	404	386	373	369	370	365	356	357
4	359	360	355	367	361	361	363	356	343	331	322	322	328	339	365	370	369	371	375	377	378	378	361	356	357
5	364	371	369	367	365	365	363	356	344	328	318	321	330	349	360	384	400	411	406	381	374	374	374	369	364
6	360	365	369	365	360	358	363	361	348	326	318	309	321	347	352	377	382	395	393	383	382	370	361	365	360
7	367	367	369	365	365	369	375	370	356	343	331	319	330	359	377	378	352	365	377	380	381	379	378	378	364
8	374	374	374	374	377	379	362	356	355	325	326	325	339	344	335	356	365	374	377	387	390	386	394	399	364
9 *d*	387	383	383	389	389	387	381	371	365	325	304	300	332	348	408	577	449	400	377	365	370	371	350	341	*377*
10	304	342	367	365	365	367	363	350	339	327	321	307	321	327	340	353	361	369	367	370	372	374	382	374	351
11 *q*	373	371	369	367	369	373	371	366	352	335	324	334	339	343	359	361	375	374	377	381	377	377	380	386	364
12	379	383	374	373	374	376	375	367	355	342	341	331	335	356	361	374	361	378	389	397	400	419	403	390	372
13	386	384	379	368	374	383	365	365	361	330	328	338	335	360	360	374	400	400	395	432	384	361	378	339	370
14 *d*	358	356	367	370	374	374	374	367	361	350	345	336	319	457	435	395	369	382	382	377	377	377	356	291	369
15 *d*	355	274	208	311	345	337	304	196	231	291	303	336	521	577	499	532	374	392	431	361	355	358	356	353	358
16	353	353	342	341	345	356	353	347	335	321	315	313	322	339	355	360	365	369	378	382	387	370	333	344	349
17	334	350	369	369	369	369	365	361	352	339	334	334	339	331	352	365	373	374	377	376	374	377	378	377	360
18	374	373	372	371	373	377	377	368	351	321	308	322	330	347	354	369	367	378	394	379	382	382	381	381	364
19 *q*	378	378	376	374	373	370	368	363	355	339	334	328	333	342	352	361	372	400	381	386	380	382	382	378	366
20 *q*	373	374	373	374	376	378	376	369	357	341	334	330	331	339	357	386	384	379	386	385	382	382	378	379	368
21 *q*	377	377	377	377	380	378	373	362	351	339	334	331	335	348	343	358	372	389	396	390	390	389	387	386	368
22	386	381	380	381	382	382	377	378	361	328	314	318	339	356	360	358	377	399	416	409	396	398	395	393	373
23 *d*	384	400	394	396	386	369	355	326	311	245	282	296	334	488	687	1060	1008	647	514	336	199	98	−60	−430	376
24 *d*	−504	−60	−150	−58	−64	179	304	267	251	315	347	421	391	415	447	434	534	429	400	365	246	303	300	274	*241*
25	167	127	284	335	325	304	322	326	310	300	308	308	317	331	339	348	352	361	368	365	363	363	357	356	318
26	344	341	335	333	327	326	332	339	338	343	339	344	358	364	373	376	384	369	393	396	379	370	361	341	354
27	309	336	323	345	348	341	337	328	322	313	316	321	327	335	348	355	360	367	372	377	370	369	364	361	343
28	361	360	356	361	358	354	356	348	339	331	332	339	345	351	381	396	402	381	424	447	381	369	368	369	367
29	368	365	361	361	364	361	356	334	300	322	331	326	343	347	355	366	378	399	384	389	393	370	360	366	358
30 *q*	368	361	363	369	366	365	360	353	344	335	333	339	352	356	354	380	386	399	397	386	378	374	375	377	365
Mean	324	339	337	349	349	356	358	346	337	326	*323*	327	340	365	379	*407*	404	394	392	383	369	362	352	335	356

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −1γ.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

23 LERWICK (D) — 11° + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	14·8	15·4	17·0	16·7	18·7	17·5	16·8	17·6	23·2	21·3	25·5	29·6	32·9	32·3	30·0	27·0	23·7	23·6	18·5	18·2	17·2	9·0	11·0	13·4	20·4
2	18·5	25·7	20·1	18·5	21·6	17·2	16·0	17·7	18·3	19·1	22·7	28·9	30·4	32·3	31·1	30·4	27·3	19·0	23·7	24·4	23·9	24·0	12·6	17·8	22·6
3	20·9	22·7	21·8	21·4	20·7	19·5	18·6	18·7	19·0	20·2	23·3	28·1	30·5	29·9	30·9	29·9	27·0	21·3	21·9	23·1	23·0	20·3	19·5	20·5	23·0
4	19·9	18·9	21·7	20·7	18·8	19·3	17·9	15·9	15·9	18·8	24·2	28·8	31·4	31·8	31·3	27·8	25·0	23·8	23·7	23·9	24·6	20·2	18·9	20·6	22·7
5	16·8	16·8	19·9	20·4	19·6	19·2	17·7	15·6	15·1	16·3	19·9	25·9	31·4	34·8	35·2	35·1	32·8	33·9	26·3	24·5	24·4	23·5	22·3	18·7	23·6
6	20·0	17·4	17·3	19·1	19·5	20·7	17·7	16·4	17·7	20·0	24·6	29·6	32·1	35·2	32·8	32·4	28·5	26·6	26·0	25·0	25·6	22·7	15·5	18·6	23·4
7	17·9	19·5	19·9	11·8	15·3	14·6	16·1	15·0	16·9	18·8	22·5	27·0	31·4	35·1	36·2	36·0	31·8	25·0	24·1	23·0	20·4	22·7	24·4	23·8	22·9
8	23·5	23·0	22·8	22·4	22·2	21·6	23·3	22·1	21·8	22·2	24·6	26·7	31·0	32·4	29·9	27·4	24·5	22·4	22·4	22·7	24·6	24·8	24·0	24·5	24·5
9 *d*	22·2	22·6	22·6	21·5	20·6	18·9	18·3	17·8	16·0	20·2	26·6	33·8	34·5	36·3	31·0	25·8	26·3	25·8	23·3	22·7	23·5	23·8	14·3	12·4	23·4
10	23·3	20·6	20·8	20·4	19·5	17·9	16·8	15·7	16·2	17·3	21·5	24·9	27·4	28·2	27·8	25·7	24·3	22·9	22·7	23·0	23·0	22·9	22·6	20·7	21·9
11 *q*	22·7	22·5	22·4	22·0	21·9	21·7	21·0	17·5	17·4	20·4	24·5	27·5	31·1	30·4	28·1	25·5	23·7	22·2	22·1	23·3	23·7	23·9	24·5	22·9	23·5
12	22·8	22·9	20·8	20·2	19·7	19·5	17·7	16·4	16·4	19·5	23·5	27·9	29·1	31·4	30·4	28·1	26·5	24·6	23·5	25·4	25·4	25·5	19·9	21·8	23·3
13	23·3	24·9	16·4	12·8	15·0	17·6	24·3	20·9	20·5	20·7	23·0	25·8	28·9	31·0	29·8	27·5	24·5	23·5	21·8	7·1	13·1	18·5	14·6	18·7	21·0
14 *d*	26·1	29·1	23·4	20·9	19·6	18·9	17·2	15·9	17·1	21·4	23·9	28·5	31·9	31·7	27·8	33·8	28·4	24·6	24·2	21·5	18·5	15·8	19·4	24·2	23·5
15 *d*	23·0	25·3	0·2	11·8	17·7	20·1	24·7	37·9	37·8	23·4	32·1	32·4	20·9	23·3	25·6	31·1	27·4	25·8	27·6	24·2	23·0	24·1	23·9	24·0	24·5
16	22·9	22·1	22·3	22·6	22·7	20·1	17·4	16·5	16·8	19·2	22·5	26·4	29·2	29·8	28·5	26·4	24·9	24·7	23·7	23·9	18·1	15·9	13·0	19·8	22·1
17	26·9	21·7	20·7	20·0	20·6	19·3	18·1	16·5	16·9	18·5	21·7	25·7	29·2	30·1	29·4	27·6	25·7	24·3	23·4	23·3	23·4	22·9	23·1	22·1	23·0
18	21·6	22·9	22·8	22·8	22·1	20·5	18·7	17·7	17·7	20·7	24·6	29·1	30·5	30·3	28·7	27·1	26·2	25·2	24·9	24·2	23·0	23·7	23·4	23·3	23·8
19 *q*	22·9	22·0	21·4	21·1	20·6	20·4	19·6	19·6	19·1	19·7	20·7	22·0	24·6	26·3	26·3	26·4	26·5	26·0	23·7	24·5	25·1	24·9	22·2	16·2	22·6
20 *q*	18·9	22·6	22·9	22·3	22·3	21·2	19·8	18·2	18·2	19·5	21·2	23·9	26·9	28·4	28·5	28·2	26·5	25·4	25·7	25·6	24·6	23·9	23·7	23·0	23·4
21 *q*	22·5	21·7	21·4	21·0	20·3	19·1	18·1	17·4	18·2	18·7	21·5	24·9	27·8	30·5	28·6	28·0	27·0	25·8	25·3	24·4	24·3	24·4	24·5	24·5	23·3
22	23·5	22·8	22·1	21·0	19·9	19·6	18·5	16·9	16·9	24·3	30·5	30·7	31·7	32·4	32·2	30·4	28·2	28·3	26·7	26·3	25·0	24·9	24·1	22·0	25·0
23 *d*	21·8	23·2	25·8	25·8	29·7	28·3	31·8	35·1	28·7	27·2	25·0	26·0	26·8	25·1	21·8	35·9	60·9	57·3	58·8	50·0	22·9	18·8	2·1	−20·2	*28·6*
24 *d*	−20·4	−23·0	−3·2	−57·9	−25·1	21·1	14·5	15·5	10·8	21·5	16·9	18·0	26·8	29·8	26·4	30·1	20·6	28·3	27·9	24·4	32·1	18·2	19·3	13·8	*11·9*
25	15·3	4·2	14·8	16·2	14·0	17·7	16·3	13·7	17·2	21·0	23·3	25·5	25·7	25·6	25·2	23·7	23·0	22·6	21·2	20·5	21·3	22·1	21·8	20·8	19·7
26	20·7	18·5	16·9	15·7	15·1	15·8	17·6	18·8	20·6	22·8	25·2	27·1	29·2	30·0	30·1	28·8	26·2	23·6	23·6	24·4	21·9	23·3	19·7	13·3	22·0
27	4·9	2·7	15·5	19·0	18·1	18·2	18·2	18·7	19·3	20·9	22·9	25·1	26·6	26·8	27·2	26·8	25·7	25·1	24·2	22·4	21·7	22·0	22·1	21·5	20·7
28	18·9	18·1	16·4	16·1	17·9	16·9	16·9	15·9	15·7	18·6	20·1	24·1	28·2	29·3	29·7	30·0	28·5	25·3	27·1	27·7	14·7	17·5	20·5	20·9	21·5
29	20·7	20·6	20·5	19·8	18·7	16·8	14·5	12·8	19·0	20·6	24·9	29·0	30·7	28·5	26·5	25·8	24·4	24·2	21·6	21·9	22·5	18·6	17·0	20·9	21·7
30 *q*	24·4	25·0	23·5	19·9	18·4	16·8	14·6	13·5	14·6	18·3	21·7	25·7	30·5	30·9	29·5	28·4	26·4	25·4	23·9	22·8	22·5	22·4	21·9	21·7	22·6
Mean	19·4	19·1	19·0	*16·9*	18·2	19·2	18·6	18·3	18·6	20·4	23·5	27·0	29·0	*30·3*	29·2	28·9	27·4	25·9	25·1	23·9	22·6	21·5	19·5	18·9	22·5

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

24 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	956	886	949	992	998	999	1002	1002	1013	1006	1010	1018	1013	1015	1022	1030	1032	1025	1023	1014	1015	997	960	945	997
2	957	933	972	981	972	960	966	976	981	998	1009	1014	1025	1040	1048	1036	1052	1056	1026	1009	1004	944	974	982	996
3	999	1009	1014	1014	1014	1013	1010	1009	1009	1009	1004	1008	1009	1009	1014	1023	1036	1041	1046	1040	1030	1019	1008	1003	1016
4	1006	1006	994	987	1003	1005	1009	1009	1004	1004	1002	998	1002	1003	1008	1026	1031	1025	1015	1013	1008	1004	1009	1005	1007
5	996	993	1002	1004	1009	1012	1014	1014	1012	1004	1003	993	991	994	1006	1026	1052	1085	1094	1074	1040	1022	1012	1003	1019
6	994	968	976	986	996	998	1001	1003	998	998	997	998	998	1002	1014	1019	1031	1037	1039	1041	1026	1028	1015	998	1007
7	997	993	982	961	950	966	975	981	987	990	993	997	997	1004	1023	1051	1057	1037	1024	1017	1019	1009	1004	1004	1001
8	1002	1002	1002	1002	1003	1003	1007	1003	998	1002	1004	1003	1003	1018	1016	1012	1010	1012	1016	1015	1011	1009	1003	994	1006
9 *d*	986	997	998	994	997	1002	1004	1008	1004	1005	1009	1012	1025	1042	1079	1190	1159	1111	1094	1063	1040	1024	983	935	1032
10	916	892	979	1001	1008	1009	1009	1014	1018	1020	1020	1024	1014	1013	1009	1009	1008	1007	1004	1004	1006	1006	997	988	999
11 *q*	993	997	999	1001	1002	998	1000	1003	1004	1000	1001	998	1006	1010	1011	1011	1004	1007	1003	1003	1003	1003	1003	998	1002
12	999	995	998	998	1000	1000	1002	1003	1004	1003	999	1004	999	997	1003	1010	1007	1000	1000	998	998	992	988	999	1000
13	994	963	917	949	976	977	977	967	977	989	989	993	1002	1003	1013	1016	1031	1042	1041	1009	982	988	955	924	*986*
14 *d*	912	933	974	993	998	1002	1003	1001	995	990	993	1003	1018	1049	1116	1068	1059	1052	1039	1038	1025	966	909	907	1002
15 *d*	903	900	836	844	905	944	959	959	959	1011	1061	1051	1137	1153	1154	1115	1083	1067	1066	987	1008	1008	1002	997	1005
16	1001	1007	1007	1002	997	1003	1012	1012	1011	1010	1010	1011	1013	1013	1018	1019	1024	1017	1013	1013	1002	976	944	947	1003
17	931	938	983	997	1002	1002	1002	1002	1002	997	997	997	1004	1014	1007	1007	1007	1007	1006	1003	1001	998	997	997	996
18	996	1000	999	1002	996	1000	1003	1007	1003	1007	1002	996	994	996	1002	1012	1010	1006	1006	1009	1008	1002	997	997	1002
19 *q*	997	997	1000	1002	1002	1000	997	994	993	992	992	991	988	989	992	996	997	1002	1016	1009	1005	999	993	978	997
20 *q*	986	993	996	997	997	996	997	998	999	999	997	993	992	991	992	997	1018	1023	1010	1004	1001	997	996	995	999
21 *q*	996	997	997	997	999	1001	1002	1000	997	993	992	987	985	987	994	992	993	997	1003	1008	1003	997	995	992	996
22	987	991	993	996	997	997	997	992	993	1001	997	1001	998	997	1000	1002	1005	1009	1011	1008	1008	1002	998	995	999
23 *d*	989	972	952	939	937	946	930	927	953	981	995	1045	1101	1166	1175	1024	947	1060	1061	1102	1156	1092	1251	1510	*1050*
24 *d*	1347	1143	1251	899	974	1001	941	981	998	998	1037	1072	1054	1061	1098	1086	1083	1017	1057	1033	913	936	947	958	1037
25	913	840	861	954	1002	980	989	1014	1027	1032	1030	1034	1033	1033	1033	1033	1030	1029	1028	1030	1028	1027	1026	1027	1001
26	1028	1027	1022	1017	1016	1007	998	996	997	997	1008	1019	1019	1020	1023	1022	1023	1033	1026	1029	1040	1030	1013	955	1015
27	896	850	887	971	1002	1012	1010	1008	1007	1012	1013	1009	1008	1009	1013	1018	1019	1016	1015	1019	1020	1018	1019	1019	995
28	1014	1006	1003	1008	1013	1010	1008	1008	1007	1002	1003	1002	1003	1010	1018	1034	1057	1065	1039	1062	1044	1034	1028	1019	1021
29	1015	1019	1018	1015	1014	1014	1012	1011	1009	992	998	1004	1003	1004	1003	1002	1004	1006	1020	1014	1013	1015	1017	1009	1010
30 *q*	1003	989	987	1004	1009	1009	1009	1005	998	996	993	992	993	999	1003	1002	1004	1007	1009	1013	1009	1009	1006	1004	1002
Mean	990	*975*	985	984	993	996	995	997	999	1001	1005	1009	1014	1021	*1030*	1030	1029	1029	1028	1023	1016	1005	1002	1003	1007

Corrections to be applied to all values, *H*, -6γ; *D*, $-4'{\cdot}4$; *V*, -1γ.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

25 LERWICK — APRIL

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	h. m.		γ	h. m.	′	′	h. m.	′	h. m.	γ	h. m.		γ					°A.
1	19 02	403	02 29	102	301	12 52	34·8	6·6	21 32	28·2	15 57	1038	02 28	847	191	6,2,3,2,2,2,3,3	23	1	81·2
2	20 58	406	21 31	354	*52*	21 07	38·2	6·1	21 53	32·1	17 20	1064	21 20	904	160	3,3,2,2,3,3,3,5	24	1	81·3
3	17 46	421	11 46	307	114	13 55	31·4	16·8	08 28	14·6	18 45	1051	00 01	993	58	1,0,1,1,2,3,2,2	12	0	81·2
4	21 34	385	11 48	319	66	12 42	32·4	13·7	21 50	18·7	16 48	1035	03 09	972	63	2,2,1,2,2,2,1,3	15	0	81·3
5	17 46	421	10 50	314	107	17 08	37·9	14·2	08 11	23·7	18 19	1102	12 18	987	115	2,1,1,2,3,4,3,3	19	1	81·5
6	18 01	400	11 50	309	91	13 34	36·7	13·2	22 23	23·5	19 19	1052	01 18	960	92	3,2,1,2,2,2,2,3	17	0	81·0
7	14 42	396	11 33	314	82	14 44	38·3	8·7	03 36	29·6	16 17	1064	04 43	940	124	2,3,2,2,3,3,2,2	19	1	80·7
8	23 52	409	10 12	318	91	12 57	33·5	19·5	08 04	14·0	13 50	1023	24 00	974	49	0,0,2,1,2,2,2,2	11	0	80·7
9 *d*	15 08	646	11 47	313	333	13 18	37·8	−4·3	22 47	42·1	15 27	1213	23 52	922	291	2,1,2,3,5,6,3,4	26	1	80·5
10	22 48	394	00 54	281	113	00 50	30·4	15·1	07 31	15·3	11 26	1029	01 08	843	186	5,1,2,2,1,1,0,2	14	1	79·2
11 *q*	23 21	390	10 50	321	69	12 20	32·0	15·3	07 52	16·7	15 14	1015	00 48	989	*26*	1,0,2,2,1,1,1,1	9	0	78·8
12	21 58	443	11 54	323	120	13 54	35·2	13·6	22 39	21·6	15 45	1017	22 12	972	45	2,2,1,2,3,3,2,3	18	1	79·2
13	19 19	459	10 07	318	141	13 12	32·3	0·7	19 18	31·6	18 52	1051	23 59	895	156	4,3,3,2,2,3,4,4	25	1	79·9
14 *d*	13 56	563	23 48	208	355	13 33	38·3	12·0	21 52	26·3	14 13	1138	23 51	857	281	4,2,1,3,6,3,3,5	27	1	80·1
15 *d*	13 13	642	02 27	139	503	19 14	62·2	−11·4	02 42	73·6	12 53	1189	02 59	799	390	5,4,5,5,5,6,6,1	37	2	80·3
16	20 20	385	11 36	312	73	13 09	30·7	7·3	22 28	23·4	16 34	1028	23 53	933	95	2,2,3,0,2,2,3,3	17	1	81·0
17	23 49	382	00 39	313	69	00 39	33·5	15·8	07 42	17·7	13 22	1017	01 05	910	107	4,1,0,1,2,1,0,0	9	0	81·0
18	18 16	400	10 36	296	104	12 55	31·6	15·8	08 20	15·8	15 38	1017	12 55	991	26	1,2,2,2,2,2,2,0	13	0	80·7
19 *q*	17 27	412	11 40	325	87	17 05	27·5	14·5	23 33	*13·0*	18 32	1018	23 45	972	46	0,0,0,2,1,3,1,3	10	0	80·2
20 *q*	16 09	395	11 42	324	71	14 11	29·4	16·4	00 00	13·0	17 08	1029	00 00	979	50	2,0,0,1,2,3,0,0	8	0	80·3
21 *q*	18 22	400	12 00	328	72	13 50	31·5	16·0	07 27	15·5	19 25	1009	12 56	982	27	0,1,1,1,2,2,1,0	8	0	80·5
22	18 18	439	11 31	303	136	10 38	34·3	11·1	07 03	23·2	18 44	1024	08 18	988	36	1,2,3,3,2,3,3,1	18	1	80·1
23 *d*	15 51	*1168*	23 38	*−1122*	*2290*	16 56	*123·0*	*−182·0*	23 38	*305·0*	23 49	*2168*	16 58	743	*1425*	3,3,3,4,7,7,7,9	43	2	80·5
24 *d*	16 38	642	00 15	−1115	1757	20 28	50·4	−103·9	03 27	154·3	00 02	1871	03 48	*530*	1341	9,7,5,5,4,6,6,4	46	2	80·0
25	18 22	374	01 25	34	340	12 30	26·6	−14·9	01 31	41·5	11 20	1037	02 54	789	248	6,4,3,2,0,0,0,1	16	1	79·8
26	18 43	405	05 19	324	81	14 03	30·5	9·0	23 46	21·5	20 48	1042	23 54	939	103	2,2,2,2,1,2,2,4	17	1	78·8
27	19 26	381	01 11	276	105	13 56	27·6	−0·9	01 42	28·5	20 04	1023	01 21	841	182	4,1,0,2,1,0,1,1	10	1	79·6
28	19 34	470	09 11	326	144	15 44	33·0	8·8	20 08	24·2	19 48	1090	02 00	1001	89	1,1,0,2,2,3,4,2	15	1	80·0
29	17 38	415	08 20	288	127	12 34	31·8	11·3	07 19	20·5	18 41	1023	09 25	992	31	1,1,3,3,2,3,1,2	16	1	80·0
30 *q*	17 44	404	10 05	331	73	13 07	31·9	12·6	07 17	19·3	19 39	1015	02 10	979	36	2,2,1,1,2,1,2,0	11	0	81·0
Mean	- -	462	- -	193	269	- -	37·5	−0·8	- -	38·3	- -	1116	- -	914	202	-	-	0·73	80·4

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

26 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	373	374	373	372	368	363	339	352	348	329	322	329	339	343	360	381	406	424	435	424	396	365	367	369	369
2	348	342	355	365	370	371	368	354	343	332	325	317	323	345	357	374	391	415	418	404	395	385	375	379	365
3	377	367	369	367	370	369	359	346	330	313	312	322	339	355	365	384	395	401	416	417	393	382	377	374	367
4	382	373	371	377	377	374	375	369	351	325	334	356	352	360	385	396	388	388	417	409	391	381	373	373	374
5	369	369	370	369	366	371	372	362	348	335	325	323	331	343	357	362	381	388	405	404	418	404	381	381	368
6 *d*	381	375	375	379	397	397	319	353	373	366	353	349	348	349	361	375	404	416	409	396	397	391	417	391	378
7	409	416	430	403	388	250	148	272	320	314	322	343	313	317	336	362	366	366	378	378	375	379	374	385	*348*
8	375	375	359	340	350	314	232	277	332	339	322	318	319	350	353	366	370	379	395	407	409	391	357	351	349
9 *d*	337	332	273	322	249	336	339	294	331	340	329	325	361	447	522	632	580	518	485	394	355	300	225	332	373
10	348	349	347	353	344	295	296	345	344	322	314	314	331	340	366	390	387	403	403	401	399	396	397	396	357
11 *d*	388	374	303	352	353	361	324	275	206	345	348	354	354	334	368	381	428	478	408	389	380	375	370	375	359
12	367	366	365	370	372	376	378	369	357	335	323	337	347	349	360	374	383	392	388	398	380	379	374	370	367
13	358	346	350	337	381	378	374	361	349	346	344	344	351	359	368	368	376	388	387	397	392	388	382	377	367
14 *q*	375	378	379	375	378	376	375	370	364	353	350	353	366	374	381	381	384	388	388	390	394	387	384	383	376
15 *q*	387	385	383	381	376	370	365	354	348	340	329	336	361	361	374	380	389	393	400	403	396	392	392	391	374
16	387	383	384	383	378	375	381	383	376	362	355	357	379	367	374	388	396	403	420	408	394	389	387	384	383
17	390	379	388	379	362	388	388	384	372	362	353	349	362	373	393	414	447	449	407	404	391	385	385	384	*387*
18	382	383	344	358	374	366	363	353	320	314	331	352	345	357	370	401	403	412	403	396	386	383	381	386	369
19 *q*	383	381	379	379	379	372	366	357	344	331	327	340	348	365	385	390	396	387	394	396	399	394	391	388	374
20	383	383	382	379	383	383	378	370	359	352	345	344	349	359	372	387	405	413	434	444	435	388	245	335	375
21	310	266	290	356	368	342	305	306	322	315	317	335	361	359	370	467	462	456	469	452	374	370	374	365	363
22 *d*	366	357	375	308	178	258	229	199	300	332	316	354	370	340	389	434	503	499	450	443	403	369	362	286	351
23 *d*	308	160	310	341	376	372	359	342	316	325	349	349	354	361	364	418	469	525	494	420	400	372	329	303	363
24	290	342	305	306	306	316	335	346	349	336	331	326	353	369	422	485	483	459	425	415	395	375	350	336	365
25	356	334	283	344	359	346	350	350	342	339	336	340	347	344	359	409	431	447	440	406	385	381	372	359	365
26	356	350	330	351	374	369	358	349	340	328	323	340	342	365	382	390	404	403	388	388	391	388	378	372	365
27 *q*	370	372	377	380	379	373	357	349	344	340	337	337	343	351	369	380	385	402	407	411	401	401	375	378	372
28	375	366	362	365	356	375	366	356	345	332	327	328	348	357	392	418	418	427	418	415	405	384	377	374	374
29	374	366	362	375	375	361	354	348	336	325	335	353	360	366	371	370	391	409	430	422	412	396	385	381	373
30 *q*	374	378	370	378	378	376	372	365	352	335	331	338	353	370	381	409	406	413	407	409	408	387	370	361	376
31	344	353	344	348	366	331	359	344	324	340	341	345	354	360	357	372	387	406	426	424	417	400	385	379	367
Mean	365	357	354	361	359	355	341	341	339	335	*333*	339	349	358	376	410	411	*412*	412	411	396	383	367	368	368

Corrections to be applied to all values, *H*, -6γ; *D*, $-4'\cdot4$; *V*, -1γ.

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

27 LERWICK (D) — 11° + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	21·8	21·7	21·0	20·7	18·9	17·9	19·7	17·2	15·7	17·8	22·8	27·3	32·3	32·9	32·0	30·5	28·9	27·6	26·3	25·0	21·5	16·2	21·3	22·1	23·3
2	26·2	17·0	11·8	14·0	15·1	14·0	12·6	15·6	17·4	20·2	25·6	31·2	33·1	32·3	30·9	28·5	26·1	22·8	24·2	24·5	24·9	24·9	23·4	21·1	22·4
3	17·4	18·8	20·4	21·0	21·4	16·6	14·0	14·4	16·9	19·3	23·9	28·6	30·8	31·1	29·7	28·8	27·6	26·1	25·0	19·5	22·1	22·9	22·8	22·6	22·6
4	25·7	16·6	16·7	17·2	14·6	13·6	15·1	15·8	17·8	23·0	27·6	31·4	33·4	33·6	33·9	31·3	27·6	25·6	25·8	25·4	24·0	23·3	21·5	20·6	23·4
5	21·2	20·7	20·0	18·8	16·9	16·5	14·7	14·8	16·3	19·2	22·8	25·7	28·0	29·7	30·3	28·5	27·5	25·9	25·1	25·0	26·6	23·2	16·4	21·1	22·3
6 *d*	22·9	20·4	25·6	25·6	19·1	20·6	29·9	34·1	26·1	22·5	23·8	29·0	29·9	29·3	27·5	27·3	27·9	27·5	26·7	24·4	23·9	25·1	13·9	15·6	24·9
7	21·4	19·9	19·7	19·6	19·2	32·5	37·7	20·6	18·5	17·3	21·1	26·4	29·7	30·5	29·9	29·7	28·8	26·6	25·6	23·0	22·7	23·6	22·8	21·3	24·5
8	22·5	23·3	24·5	24·9	27·6	29·6	40·9	37·5	26·8	19·7	21·7	23·3	26·6	26·6	27·9	27·7	26·6	24·8	22·4	22·8	18·7	20·0	17·6	17·7	*25·1*
9 *d*	20·2	15·9	16·7	21·7	14·1	12·4	17·1	20·5	23·2	20·2	21·5	24·7	24·6	21·7	21·9	29·1	25·0	30·5	22·7	23·4	21·7	21·3	21·5	17·8	21·2
10	18·4	18·2	15·7	17·3	15·7	18·9	28·8	21·6	17·9	21·2	23·6	26·9	28·7	31·7	32·5	31·6	27·2	27·8	27·6	23·8	21·9	23·8	23·7	23·4	23·7
11 *d*	22·5	25·6	25·7	14·0	20·1	19·2	22·9	20·1	14·8	31·1	25·5	28·6	32·3	31·4	29·4	30·0	21·9	18·7	22·8	24·5	23·8	22·5	23·2	22·6	23·9
12	23·4	22·6	20·0	17·9	18·9	15·7	15·6	16·4	17·9	21·0	24·7	26·7	28·2	27·7	26·6	25·2	23·4	21·9	20·9	21·7	20·8	21·7	23·3	22·9	21·9
13	26·0	22·7	16·7	15·7	11·7	14·6	14·8	15·2	16·8	18·0	21·5	23·8	25·7	25·8	25·8	25·3	24·8	24·2	23·5	23·6	22·5	19·2	14·7	22·9	20·6
14 *q*	21·7	24·7	23·7	19·8	16·9	16·4	14·4	15·4	17·3	20·5	22·9	25·6	28·6	29·6	29·4	27·8	26·6	24·7	23·4	22·8	23·6	22·8	22·6	22·5	22·7
15 *q*	21·9	21·7	20·5	19·6	17·6	16·1	14·8	14·9	17·6	21·6	26·6	29·3	31·4	31·8	29·6	26·7	25·1	24·3	24·1	24·1	23·8	23·4	23·5	20·3	22·9
16	20·4	20·0	20·2	19·5	20·4	21·5	18·9	17·5	19·0	19·7	22·7	24·7	26·7	28·5	27·6	25·9	25·6	24·6	24·6	22·6	22·7	23·5	22·9	23·1	22·6
17	25·1	27·6	19·8	21·2	25·8	15·3	12·1	13·8	16·4	21·7	25·3	33·7	30·7	29·7	28·8	29·0	31·4	30·4	25·9	26·2	25·6	24·7	23·8	23·5	24·5
18	22·9	24·6	29·3	21·7	16·8	14·9	12·6	12·0	16·6	19·5	20·2	23·5	25·4	28·7	28·7	26·6	23·2	21·0	23·0	24·1	23·9	23·8	23·5	22·9	22·1
19 *q*	21·7	21·5	21·4	20·1	19·4	17·5	15·7	15·6	17·0	22·9	28·0	31·6	33·3	32·5	30·6	28·6	26·1	24·6	24·7	24·3	24·5	24·3	22·9	23·0	23·8
20	26·9	26·5	25·7	24·7	21·7	19·8	18·9	19·6	20·2	18·1	21·3	25·7	29·6	31·1	31·0	29·7	27·9	25·9	26·6	28·3	26·9	26·6	12·5	12·7	24·1
21	12·5	10·7	17·6	17·6	15·3	13·8	20·6	24·5	16·6	17·5	25·0	28·4	31·0	30·8	33·1	28·6	33·5	36·2	27·9	33·5	30·8	24·3	20·6	21·0	23·8
22 *d*	17·6	16·5	14·3	14·8	8·0	20·4	18·8	23·0	25·9	20·5	21·6	27·6	29·0	31·0	30·2	30·1	24·5	28·0	27·6	17·9	25·6	24·9	27·4	26·7	23·0
23 *d*	18·7	10·3	21·5	15·3	14·6	11·7	9·2	13·7	13·0	18·3	17·2	22·2	22·8	24·1	27·2	27·8	26·2	25·4	21·5	26·0	20·9	20·8	20·9	9·3	*19·1*
24	18·7	18·7	13·8	14·8	16·5	15·4	15·3	12·9	15·4	18·1	23·2	26·7	29·5	31·0	31·5	25·9	31·6	29·6	30·6	27·5	25·1	23·1	23·2	24·5	22·6
25	14·9	13·7	21·3	19·4	18·8	17·2	14·8	13·4	11·2	14·6	18·4	24·0	27·3	28·2	27·2	26·6	24·0	19·8	24·3	22·0	22·9	23·1	21·1	22·5	20·4
26	21·0	22·9	22·8	19·7	17·7	15·1	14·9	13·8	14·6	17·2	23·0	27·9	30·6	29·8	29·0	27·6	26·4	23·1	21·8	22·6	23·1	21·8	21·6	22·2	22·1
27 *q*	21·8	20·2	20·0	19·9	18·4	15·7	14·1	15·4	16·2	19·3	22·9	26·7	29·6	29·8	29·3	27·6	25·4	24·2	22·3	21·7	22·9	19·9	20·9	22·6	21·9
28	21·1	21·3	21·0	16·6	16·4	14·2	12·8	11·9	12·1	18·5	22·4	26·0	29·0	29·8	28·4	24·1	22·5	22·8	21·6	22·7	19·2	20·8	23·3	23·3	20·9
29	23·8	21·1	16·7	16·5	15·9	15·6	19·4	17·2	17·2	23·2	27·2	31·0	32·6	32·7	30·9	27·9	27·1	26·3	25·8	23·4	23·1	23·4	21·3	19·6	23·3
30 *q*	18·7	20·6	18·7	17·3	16·7	16·1	15·5	14·9	14·9	17·5	22·5	26·2	29·4	30·2	30·5	28·8	26·1	23·2	22·8	23·5	19·3	18·4	17·9	19·0	21·2
31	11·2	10·8	14·8	8·9	15·1	20·6	17·7	9·6	14·2	20·4	24·4	28·8	30·1	29·2	27·8	27·6	26·9	25·8	25·2	24·6	22·7	21·9	21·6	21·0	20·9
Mean	21·0	19·9	19·9	18·6	17·6	*17·4*	18·2	17·5	17·5	20·3	23·3	27·2	29·3	*29·8*	29·3	28·1	26·6	25·5	24·6	24·0	23·3	22·5	21·2	21·0	22·6

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

28 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1007	1007	1009	1009	1009	1009	1007	993	996	996	998	987	990	997	1003	1013	1023	1033	1045	1047	1032	999	988	987	*1007*
2	976	907	938	972	995	1002	1003	1001	996	997	994	987	987	993	1003	1011	1020	1029	1024	1020	1014	1010	1004	982	994
3	969	990	1001	994	983	995	1003	1003	998	993	988	982	983	993	999	1004	1012	1022	1021	1018	1015	1012	1010	1005	1000
4	973	934	959	976	977	976	979	983	988	988	982	983	990	996	1010	1029	1049	1048	1040	1042	1043	1026	1018	1010	1000
5	1009	1005	1006	1003	1003	999	1002	1003	997	995	991	983	982	979	983	994	1001	1010	1008	1006	999	996	1003	994	998
6 *d*	995	989	989	956	947	972	984	923	943	980	997	1002	995	1005	1010	1011	1004	1009	1011	1012	1014	1011	950	894	983
7	978	984	984	984	940	939	798	870	960	986	991	997	1018	1005	1011	1010	1007	1004	1001	1009	1013	1012	1006	990	979
8	989	995	1000	962	934	938	906	891	922	961	978	990	1014	1027	1021	1009	1004	1006	1025	1040	1031	1006	941	902	979
9 *d*	917	915	808	858	793	876	917	936	943	977	1014	1040	1065	1122	1171	1139	1104	1062	1017	999	994	986	883	947	978
10	972	982	998	1008	1007	975	917	935	973	986	990	1001	1003	1004	1000	1011	1024	1021	1012	1013	1007	1003	1000	999	993
11 *d*	1007	992	942	900	901	942	951	961	993	950	980	994	991	1022	1032	1048	1071	1061	1052	1032	1015	1014	1006	1000	994
12	1000	1000	1002	1001	999	1000	995	999	1001	1002	1001	997	999	1009	1008	1008	1013	1012	1009	1004	1008	1002	999	1001	1003
13	984	940	934	928	956	979	987	993	996	999	996	996	991	995	999	1004	1006	1006	1007	1001	1003	1005	1004	994	988
14 *q*	991	983	981	996	1003	1001	1000	999	993	989	986	981	980	982	984	990	993	999	1000	998	994	998	998	998	992
15 *q*	998	999	1000	1002	1005	1002	1003	1002	996	992	988	984	984	992	996	1004	1007	1006	1002	1000	1001	998	994	993	998
16	996	1000	1002	1003	1000	993	985	986	986	989	990	988	989	1004	994	997	999	1005	1012	1031	1025	1009	1002	1000	999
17	995	978	963	967	942	962	983	984	982	985	987	986	990	1003	1015	1035	1053	1084	1071	1028	1014	1005	1002	1001	1001
18	1001	999	974	921	927	960	981	993	1001	989	984	990	1015	1015	1021	1036	1052	1042	1024	1009	1002	997	995	990	997
19 *q*	994	999	1002	1004	1005	1003	1002	999	994	986	982	980	984	994	999	1006	1008	1012	1007	1005	1003	1002	995	994	998
20	995	996	999	1000	1001	1003	1003	1004	1000	997	994	988	985	989	991	996	996	1003	1005	1006	1018	1009	867	907	990
21	899	839	907	960	998	992	972	959	975	1013	1008	1000	1005	1035	1061	1081	1063	1059	1065	1030	999	999	1011	983	996
22 *d*	965	979	990	967	744	781	871	915	930	967	1010	1020	1079	1070	1044	1041	1073	1050	1045	1030	1028	1021	970	882	978
23 *d*	890	797	836	899	956	997	1008	1007	1009	1007	1013	1017	1047	1039	1012	1025	1047	1031	998	1004	1016	998	917	909	978
24	889	887	902	897	937	952	972	996	1003	1004	1005	1009	1012	1021	1040	1066	1050	1055	1040	1022	1019	1013	986	907	987
25	881	924	900	923	946	967	987	1003	1015	1013	1005	1006	1009	1006	999	1001	1026	1044	1025	1022	1013	1000	953	945	984
26	955	953	926	901	952	987	998	1004	1002	998	994	985	988	998	1005	1006	1007	1013	1015	1004	1001	995	1000	1003	987
27 *q*	1004	999	1001	1001	1000	1006	1009	1008	1007	1004	994	994	995	996	994	1000	1008	1008	1007	1009	1012	995	1005	1000	1003
28	1000	999	976	969	966	953	964	969	977	978	982	988	995	1011	1023	1043	1043	1027	1026	1013	995	993	1000	1001	995
29	986	972	975	985	996	995	985	978	979	981	980	986	993	1004	1013	1016	1008	1007	1010	1025	1007	995	998	996	995
30 *q*	1001	983	975	987	1001	1004	1004	1005	1004	997	992	982	981	989	997	1005	1016	1023	1022	1009	1012	1005	1005	987	999
31	949	941	931	899	890	901	909	942	956	958	966	978	981	990	1006	1018	1030	1036	1035	1019	1012	1016	1006	998	*974*
Mean	973	963	962	962	*958*	970	970	976	984	989	992	994	1001	1009	1014	1021	1026	*1027*	1022	1016	1012	1004	984	974	992

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −1γ.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

29 LERWICK — MAY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 46,000γ +		Minimum 46,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m. ′	′ h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	18 55	453	321	10 52	132	13 08 33·8	12·4 21 41	21·4	18 48	1054	981	22 26	73	0,1,2,2,2,3,3,3	16	0	81·0
2	17 40	424	314	11 43	110	00 57 34·5	11·0 02 04	23·5	17 30	1030	893	01 17	137	4,3,2,2,2,3,2,3	21	1	81·0
3	18 53	447	310	10 23	137	13 19 31·6	12·8 06 58	18·8	17 53	1025	965	00 26	60	2,2,2,2,2,2,3,1	16	0	81·0
4	19 00	422	316	09 31	106	14 05 34·7	13·0 05 33	21·7	17 16	1055	927	01 11	128	3,1,1,3,2,2,2,2	16	1	81·3
5	20 20	427	320	11 20	107	14 10 30·6	12·9 22 19	17·7	22 08	1014	924	13 40	90	0,1,0,1,1,2,2,3	10	0	81·2
6 *d*	22 46	521	241	06 50	280	07 47 37·5	*−21·1* 22 48	*58·6*	17 45	1018	768	23 05	250	3,4,5,3,2,2,2,6	27	1	80·8
7	02 38	444	86	06 06	358	06 09 51·4	7·9 08 37	43·5	12 38	1032	757	06 23	275	3,6,6,4,4,2,1,2	28	2	81·2
8	20 16	430	126	06 20	304	06 30 49·1	12·6 23 37	36·5	19 58	1055	842	06 55	213	2,5,5,3,3,3,3,4	28	1	82·2
9 *d*	15 03	*745*	154	22 16	*591*	16 26 48·7	7·0 18 12	41·7	15 03	*1201*	749	04 25	*452*	5,5,4,4,6,6,5,5	40	2	82·7
10	22 48	420	250	06 11	170	14 53 33·9	14·5 02 18	19·4	16 38	1027	909	06 46	118	3,3,4,2,3,3,3,2	23	1	83·0
11 *d*	17 03	517	163	08 38	354	09 13 *55·2*	−3·8 08 30	56·0	16 47	1101	880	09 11	221	4,4,5,5,4,5,3,2	32	1	83·2
12	19 20	413	315	10 10	98	12 57 29·6	12·9 06 14	16·7	17 00	1014	993	11 21	*21*	2,2,2,2,2,2,2,1	15	0	83·6
13	20 06	403	313	03 08	90	00 38 28·2	10·0 04 12	18·2	18 13	1009	918	03 40	91	3,3,1,1,1,1,2,3	15	0	83·0
14 *q*	20 31	397	348	10 37	*49*	14 55 30·3	13·8 06 43	16·5	05 19	1004	972	02 24	32	2,2,1,0,1,2,1,0	9	0	82·1
15 *q*	19 29	409	323	10 26	86	13 01 32·4	14·0 07 47	18·4	16 26	1009	979	12 32	30	1,1,1,2,2,2,1,2	12	0	81·4
16	18 45	430	341	13 52	89	13 47 29·5	16·6 07 25	*12·9*	19 41	1040	983	07 50	57	1,2,1,1,3,1,2,2	13	0	81·0
17	17 10	486	341	11 06	145	17 28 34·4	10·0 06 33	24·4	17 48	1108	920	04 47	188	3,3,2,2,3,4,4,1	22	1	81·2
18	17 00	426	306	09 15	120	02 36 28·6	9·5 06 47	19·1	16 23	1055	913	03 56	142	3,3,3,3,3,3,2,1	21	1	81·1
19 *q*	16 32	403	324	09 54	79	12 28 33·6	14·6 06 45	19·0	17 46	1013	979	11 18	34	0,1,1,2,2,2,1,1	10	0	83·5
20	19 16	455	133	22 29	322	14 14 31·4	3·1 22 15	28·3	21 17	1037	781	22 27	256	0,1,1,1,1,2,2,6	14	1	84·0
21	15 54	517	146	01 18	371	20 44 46·5	0·7 01 49	45·8	15 24	1104	815	01 16	289	4,3,3,3,3,4,5,4	29	1	83·8
22 *d*	17 04	547	125	04 17	422	23 19 39·5	−6·0 04 31	45·5	16 07	1110	*681*	04 30	429	3,6,5,4,4,5,4,5	36	2	83·8
23 *d*	17 50	581	*74*	01 24	507	17 32 33·3	−1·5 01 37	34·8	12 34	1065	746	01 46	319	6,5,3,3,3,5,5,5	35	2	83·2
24	15 25	509	262	00 35	247	14 23 36·2	6·9 00 00	29·3	15 08	1085	841	01 55	244	4,4,3,3,4,4,3,5	30	1	82·7
25	17 40	455	241	02 27	214	02 31 29·6	7·0 00 30	22·6	17 10	1052	838	00 08	214	4,4,3,2,2,3,3,4	25	1	84·6
26	16 03	413	300	02 56	113	12 33 31·6	11·5 06 42	20·1	17 50	1020	884	03 05	136	3,4,2,2,3,2,1,1	18	1	84·8
27 *q*	21 36	420	332	11 29	88	14 40 29·9	13·0 06 25	16·9	19 50	1015	994	14 40	*21*	1,1,1,1,2,1,1,3	11	0	84·9
28	17 23	431	321	11 36	110	14 05 30·5	9·7 08 14	20·8	15 46	1048	947	05 05	101	2,2,2,2,3,2,3,2	18	1	85·1
29	19 19	439	323	09 49	116	13 03 33·6	14·6 05 57	19·0	19 41	1032	967	01 58	65	2,2,2,2,2,3,3,2	18	1	85·1
30 *q*	20 18	422	327	10 37	95	14 56 31·0	13·8 24 00	17·2	17 51	1025	965	02 08	60	3,2,1,2,2,2,2,3	17	1	86·0
31	18 33	439	306	05 44	133	12 19 31·0	1·0 03 36	30·0	18 06	1040	881	03 26	159	3,4,4,2,2,2,2,2	21	1	86·1
Mean	− −	459	261	− −	198	− − 35·2	8·2 − −	26·9	− −	1048	890	− −	158	−	−	0·81	82·9

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

30 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	379	378	379	375	372	365	370	376	366	351	344	343	350	356	365	376	398	403	410	412	397	388	387	385	376
2 *q*	387	388	367	377	381	388	388	378	365	352	342	338	336	344	357	373	395	418	430	422	409	396	388	387	379
3 *q*	387	388	388	387	388	387	379	370	359	348	339	345	359	371	380	384	390	402	409	403	400	394	391	391	381
4	391	391	391	392	391	387	379	375	374	356	352	349	364	371	353	384	410	399	407	405	399	393	393	391	383
5	388	384	387	389	388	383	375	366	356	345	341	344	348	361	375	391	408	414	411	409	440	426	392	392	384
6	346	392	391	396	395	392	380	366	342	323	323	323	372	346	334	366	379	392	400	409	406	397	396	395	373
7 *d*	395	388	396	395	392	391	388	387	388	379	361	377	340	437	586	525	707	622	477	436	401	366	357	331	*426*
8 *d*	297	232	194	327	349	353	349	332	332	336	340	327	344	356	411	345	401	401	413	415	423	413	390	379	352
9	366	383	351	293	311	323	335	338	347	335	336	344	374	409	403	461	456	431	411	395	386	383	381	374	372
10	370	371	374	375	375	367	357	350	347	336	334	344	357	350	375	396	455	388	418	412	396	387	379	377	375
11	379	384	388	382	366	372	364	344	336	336	340	349	335	366	361	377	404	400	407	412	407	404	400	400	375
12 *d*	400	399	400	405	392	387	390	379	366	349	344	359	356	372	476	549	547	539	493	439	392	377	344	353	409
13	358	332	347	364	366	349	356	366	357	334	315	332	361	333	367	392	419	420	415	417	406	392	384	383	369
14	383	384	385	383	380	367	362	349	342	352	353	356	369	373	381	409	430	435	441	428	394	381	378	373	383
15	375	378	380	381	379	379	368	336	349	344	340	349	353	367	380	374	392	408	413	419	422	400	392	389	378
16	387	387	383	385	392	388	377	353	334	344	324	336	334	369	353	387	415	448	440	468	439	378	340	234	375
17	-121	96	135	330	334	286	353	361	346	339	327	331	328	340	364	376	389	393	409	409	404	400	396	374	*321*
18	354	297	318	375	366	362	366	358	337	317	306	327	339	352	375	415	465	508	471	441	417	382	345	273	369
19 *d*	306	199	320	328	339	312	313	325	281	283	284	322	345												
20	327	327	351	343	351	366	359	346	329	321	327	332	344	383	404	404	404	404	409	426	410	388	373	370	367
21	364	336	343	345	363	359	358	321	327	343	342	342	343	351	362	382	396	395	417	434	426	404	381	351	366
22	335	343	354	366	373	372	358	354	349	343	343	342	343	366	358	373	404	395	396	432	407	388	375	370	368
23 *q*	366	366	366	373	373	366	351	328	342	343	328	323	335	350	359	373	373	381	381	381	380	376	374	373	361
24 *q*	374	376	381	381	381	374	367	365	362	365	358	357	358	366	373	381	388	395	403	398	397	396	394	388	378
25	381	388	388	385	381	383	373	366	358	343	351	349	343	343	357	389	440	434	434	395	378	374	380	381	379
26	381	380	367	373	359	366	364	354	343	335	336	338	350	364	441	470	494	471	426	411	395	388	388	373	386
27	378	379	382	388	388	388	366	330	325	343	366	367	372	366	377	380	397	412	419	453	434	434	422	396	386
28	397	402	397	402	398	394	378	365	358	354	350	358	365	381	388	397	410	425	434	427	419	394	381	374	389
29 *d*	387	388	387	379	388	358	351	339	336	335	342	366	402	434	494	591	637	554	456	411	319	291	348	358	402
30 *q*	354	366	366	366	359	365	358	343	336	327	321	329	343	336	365	388	389	403	404	397	402	388	385	381	365
Mean	354	359	360	373	373	369	366	355	348	342	*339*	344	353	366	389	407	*434*	431	423	418	404	389	381	369	377

Record lost 13h. to 24h. on 19d. Recorded values on 19d. excluded from mean values.

Corrections to be applied to all values, *H*, -6γ; *D*, $-4'\cdot4$; *V*, -1γ.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

31 LERWICK (D) — 11° + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	21·7	19·9	19·1	18·8	17·9	18·9	16·1	11·5	10·9	19·6	18·9	22·5	25·9	28·7	29·7	28·8	27·0	25·4	23·3	20·9	23·3	23·1	22·7	23·1	21·4
2 *q*	21·3	23·1	25·2	22·7	18·9	14·8	13·7	13·8	14·2	14·7	18·0	22·1	26·0	28·5	29·4	28·2	27·1	25·5	25·0	23·9	24·5	23·7	23·5	22·8	22·1
3 *q*	22·0	21·9	20·8	19·6	17·7	15·3	13·6	12·0	13·5	18·1	23·0	26·6	28·7	30·4	29·6	28·3	26·0	24·3	23·0	22·5	22·7	22·8	22·6	22·1	22·0
4	22·3	22·4	21·9	19·9	18·8	14·6	10·9	11·2	13·5	16·5	20·8	25·9	29·4	30·9	31·8	30·9	29·3	25·9	25·0	24·6	23·9	23·8	23·4	22·7	22·5
5	21·9	21·5	20·0	18·9	17·5	16·0	15·1	14·2	14·5	17·2	20·8	24·8	28·7	29·9	29·8	27·9	25·8	24·0	23·2	23·7	27·3	23·0	21·1	21·7	22·0
6	24·6	22·1	16·1	14·5	14·8	13·5	13·0	12·5	14·9	19·5	23·5	28·9	30·1	31·0	30·9	28·8	25·4	23·0	22·9	22·9	23·6	23·2	22·9	22·9	21·9
7 *d*	26·2	26·1	21·3	19·9	19·0	17·0	16·4	16·5	18·1	16·7	23·3	25·5	32·4	27·7	28·0	29·8	36·5	33·8	31·7	30·6	20·7	24·3	22·5	19·9	24·3
8 *d*	20·7	20·9	24·0	22·7	18·5	13·1	13·3	14·3	17·7	17·6	18·8	27·6	31·0	33·4	37·9	32·5	33·1	26·9	27·7	26·9	28·5	27·5	17·7	17·2	23·7
9	19·3	19·8	25·6	17·2	18·9	21·4	23·1	22·8	23·5	23·8	23·1	24·7	26·9	26·4	26·0	27·5	26·3	26·2	24·4	22·7	23·9	24·0	22·0	23·0	23·4
10	21·4	20·6	18·8	17·6	15·6	14·2	13·9	14·7	16·9	19·6	21·9	24·7	27·7	28·1	28·5	27·7	24·9	23·5	26·3	25·2	24·8	24·0	22·9	21·9	21·9
11	21·7	21·1	20·1	19·9	21·6	19·1	18·6	16·6	19·5	22·0	24·1	25·9	28·5	27·3	27·2	25·5	24·9	24·5	23·3	24·3	24·2	23·5	22·8	22·4	22·9
12 *d*	22·5	22·4	22·6	20·5	21·6	17·6	11·9	16·6	17·5	19·6	23·5	23·4	29·6	30·2	29·8	19·2	26·6	30·7	28·1	24·9	23·7	21·1	16·6	21·2	22·6
13	16·0	13·6	11·9	10·1	16·9	19·9	15·1	13·7	16·2	18·7	20·5	24·1	25·9	27·1	26·1	25·8	23·9	24·9	23·5	23·1	23·4	22·8	21·9	21·1	20·3
14	20·0	19·8	18·8	16·3	16·6	18·8	17·9	20·5	22·6	24·1	24·0	26·1	27·8	27·2	26·9	25·9	26·3	24·9	25·0	24·3	24·0	24·2	23·6	22·0	22·8
15	21·0	21·0	20·9	21·5	21·6	19·3	18·4	20·5	19·8	20·7	22·7	26·6	29·3	30·1	29·9	28·9	27·1	24·1	23·1	22·2	21·8	24·1	23·4	23·6	23·4
16	23·9	22·0	19·9	19·5	16·8	14·7	14·5	13·3	17·5	17·1	17·9	24·2	27·5	29·0	29·9	28·2	27·3	26·6	23·9	24·4	22·0	23·2	20·8	7·2	21·3
17	-11·1	0·6	10·6	3·7	12·7	16·3	15·8	10·6	11·2	14·9	19·8	24·6	27·0	29·9	30·7	29·9	28·7	25·6	25·0	23·7	24·2	24·9	15·6	22·7	*18·2*
18	22·1	24·0	20·6	14·9	13·3	13·5	11·3	11·7	13·7	17·4	18·4	22·1	26·0	28·8	30·1	30·3	29·9	29·9	26·0	27·6	26·0	18·6	16·0	15·6	21·2
19 *d*	15·4	16·8	11·7	14·8	9·5	12·1	17·8	18·0	17·8	22·9	27·8	28·0	27·8												
20	21·9	22·1	16·2	18·0	16·2	15·8	13·7	13·3	16·4	20·1	22·1	25·6	26·2	28·0	28·2	28·0	26·0	26·2	26·8	24·3	26·4	26·6	24·6	23·5	22·3
21	24·1	23·9	22·5	20·7	22·7	25·4	18·2	15·6	21·9	21·7	21·7	23·5	26·6	28·4	27·8	28·4	27·0	23·3	26·0	27·8	26·4	21·1	23·9	20·7	23·7
22	16·0	17·4	18·0	19·7	19·5	19·2	18·2	19·2	20·5	20·5	23·1	27·0	28·4	30·7	31·5	29·4	30·3	26·2	26·2	24·8	25·8	23·7	23·9	23·5	23·4
23 *q*	22·3	21·9	20·7	19·5	19·0	17·6	17·2	20·3	22·1	21·5	22·1	25·4	28·6	29·9	29·7	28·4	26·6	26·4	26·4	26·2	26·2	25·0	24·1	23·9	23·8
24 *q*	23·9	24·3	24·1	23·5	22·1	21·7	21·9	22·1	22·1	21·9	23·9	28·2	31·5	33·1	32·1	30·5	28·8	28·4	25·1	24·1	24·7	24·3	23·1	23·5	*25·4*
25	23·3	21·0	20·2	20·2	22·4	16·7	12·9	16·3	14·5	20·6	22·4	24·5	27·5	28·4	26·9	26·9	28·4	23·5	23·9	24·5	25·5	25·5	24·9	24·5	22·7
26	23·7	22·4	20·8	22·4	24·5	22·8	19·0	16·7	18·4	20·6	23·3	27·5	30·6	31·4	33·5	31·6	28·6	29·7	22·4	25·5	26·5	26·3	26·5	21·8	24·6
27	23·7	22·4	20·4	18·6	18·6	20·4	20·2	25·3	25·3	26·3	22·6	22·4	24·9	27·3	30·0	28·6	26·3	27·5	28·8	30·2	22·8	23·3	23·7	17·3	24·0
28	19·2	18·8	18·4	18·8	16·7	15·3	16·7	20·6	20·2	20·4	20·8	23·3	27·1	30·6	31·2	31·6	30·8	30·4	30·2	29·6	27·4	20·8	22·6	20·4	23·4
29 *d*	16·7	15·9	16·3	13·7	9·0	10·6	8·4	14·3	20·2	20·6	25·7	29·6	36·9	38·8	39·0	39·2	39·8	36·9	42·0	29·0	22·0	15·9	21·0	22·8	24·3
30 *q*	21·0	18·4	17·3	17·1	17·3	17·1	18·6	18·0	18·2	18·6	22·0	25·9	28·6	29·6	29·0	28·6	27·1	25·7	24·1	24·5	26·1	25·1	25·5	25·3	22·9
Mean	20·5	20·4	19·8	18·3	18·2	17·3	*15·8*	16·2	17·7	19·5	21·8	25·3	28·5	29·7	*30·0*	28·8	28·1	26·5	25·9	25·1	24·6	23·4	22·3	21·4	22·7

Record lost 13h. to 24h. on 19d. Recorded values on 19d. excluded from mean values.

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

32 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	982	977	990	992	997	1002	994	990	996	996	996	996	999	999	994	997	1006	1017	1020	1026	1017	1011	1006	1003	1000
2 q	1000	1003	1014	1008	1023	1020	1020	1020	1017	997	997	991	989	991	995	998	1004	1019	1022	1022	1018	1012	1004	1001	1008
3 q	1001	1000	1004	1007	1009	1010	1010	1008	1003	988	981	977	981	985	995	997	1001	1004	1002	1000	999	999	994	993	998
4	993	993	994	997	998	1000	1003	994	983	984	979	975	987	999	1007	1006	1015	1019	1007	1001	999	996	995	994	996
5	994	995	996	998	999	1000	999	998	994	993	992	989	986	982	984	988	996	1009	1012	1009	993	982	956	957	992
6	933	946	978	991	998	996	999	1000	996	988	986	991	999	1024	1027	1015	1009	1004	996	999	1000	1000	996	994	994
7 d	990	969	983	993	997	997	997	991	987	993	993	989	1007	1028	1172	1136	1153	1163	1116	1083	1057	1015	987	965	*1032*
8 d	916	842	812	884	942	974	994	994	993	1001	1003	999	994	1001	1019	1065	1041	1046	1020	1011	998	997	897	950	975
9	980	984	963	908	900	936	958	971	980	993	1000	1001	1003	1023	1054	1067	1076	1050	1045	1035	1019	1007	984	985	997
10	996	1004	1003	1005	1005	1006	1007	1002	999	997	996	996	1003	1014	1012	1026	1042	1041	1008	1008	1007	1005	1005	1006	1008
11	1006	1004	1002	1002	992	980	984	992	987	986	988	989	1001	995	1007	1002	1007	1021	1015	1006	1000	998	999	999	998
12 d	999	997	997	994	992	979	984	983	989	990	995	1003	1018	1028	1030	1117	1142	1133	1105	1082	1040	997	857	945	1017
13	934	899	853	856	863	890	936	968	983	990	999	995	1010	1007	1002	1007	1023	1034	1032	1021	1015	1012	1004	1001	972
14	1002	1002	1000	1001	1001	996	995	992	997	985	990	987	989	1005	1013	1012	1016	1018	1012	1014	1013	1004	1002	1002	1002
15	1002	1002	1001	1000	996	995	999	1000	988	989	989	987	992	1000	1008	1020	1013	1013	1011	1014	1013	1010	1006	1001	1002
16	999	1000	1005	1002	1002	1002	1000	1001	988	972	984	975	984	983	1001	992	992	998	1016	1021	1019	953	947	820	986
17	772	801	786	823	877	872	900	880	989	998	998	1002	1005	998	994	996	999	1007	1002	1005	1006	1002	992	984	*945*
18	975	872	861	932	961	985	995	1008	1005	1005	995	984	984	989	992	1005	1032	1061	1030	1027	1004	989	932	869	979
19 d	826	775	804	835	907	958	975	989	1007	1038	1027	1030													
20	952	941	972	995	1004	1004	1015	1024	1027	1021	1015	1010	1010	1007	1007	1010	1018	1018	1010	1012	1018	1010	1015	1015	1005
21	1004	955	949	969	995	975	987	1010	1007	1004	1007	1015	1010	1004	998	998	1001	1007	1004	1001	998	1001	987	952	993
22	918	895	935	964	981	998	1004	1004	1004	998	998	987	978	975	972	972	975	992	989	995	1001	1001	1004	998	981
23 q	995	989	981	987	989	995	995	995	975	975	978	975	975	969	961	958	958	969	975	975	981	984	987	984	979
24 q	984	981	984	987	989	995	992	989	984	987	981	975	967	964	961	961	972	975	978	984	984	989	987	989	981
25	987	978	989	989	964	955	967	975	978	978	978	975	975	981	981	984	995	1010	1010	1007	989	981	978	981	983
26	969	955	961	972	975	969	975	989	987	992	984	978	975	987	1004	1047	1087	1090	1067	1035	1018	1010	998	967	1000
27	978	981	995	998	992	987	989	989	978	972	984	995	1004	1010	1010	1004	1004	998	992	981	998	1027	1007	1004	995
28	1004	1004	1004	998	989	995	995	995	992	992	981	978	978	975	972	975	975	978	978	984	987	1004	995	995	988
29 d	978	969	969	967	949	955	955	967	958	955	952	967	989	1024	1084	1095	1078	1004	944	932	907	884	944	992	976
30 q	984	1010	1012	1015	1010	1018	1024	1027	1024	1024	1018	1007	1007	1010	1015	1027	1038	1047	1047	1038	1027	1027	1015	1012	1020
Mean	973	*964*	965	974	979	982	989	992	993	991	991	989	992	999	1009	1016	1023	*1026*	1016	1011	1004	997	982	978	993

Record lost 13h. to 24h. on 19d. Recorded values on 19d. excluded from mean values.

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −1γ.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

33 LERWICK — JUNE

	TERRESTRIAL MAGNETIC ELEMENTS															3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ′	h. m.	γ				°A.
1	19 21	419	337	11 10	82	14 11	30·5	9·9	08 16	20·6	18 07	1046	948	09 35	98	1,2,3,2,2,2,2,1	15	0	86·1
2 q	18 34	432	329	12 18	103	14 15	29·8	12·8	09 05	17·0	17 47	1023	987	13 39	36	2,1,1,2,2,3,2,2	15	0	85·6
3 q	18 22	413	336	10 26	77	13 26	30·8	11·3	07 35	19·5	06 08	1012	977	11 28	*35*	0,1,1,2,1,1,1,1	8	0	85·6
4	16 21	422	341	11 44	81	14 27	32·6	9·0	06 43	23·6	17 13	1026	973	11 12	53	0,2,2,2,3,3,1,1	14	1	86·0
5	20 14	465	338	11 12	127	13 32	30·6	13·7	07 57	16·9	18 25	1014	935	22 38	79	0,0,1,2,1,2,3,3	12	1	86·0
6	20 04	418	306	11 03	112	14 32	31·9	10·0	07 55	21·9	13 39	1032	924	00 25	108	3,2,2,2,3,2,2,1	17	1	85·5
7 d	16 45	*841*	271	12 17	570	17 34	42·8	7·2	09 50	35·6	14 42	*1276*	944	24 00	332	3,1,3,4,6,6,5,4	32	2	85·0
8 d	14 46	469	142	02 08	327	14 46	42·6	7·6	22 52	35·0	15 32	1081	793	02 47	288	5,4,2,3,4,4,3,5	30	1	85·1
9	15 49	494	250	03 26	244	15 10	31·0	9·0	03 31	22·0	16 38	1081	862	03 57	219	4,4,3,2,3,4,3,3	26	1	85·3
10	16 12	475	331	13 40	144	15 18	29·6	12·7	05 38	16·9	17 14	1059	987	00 01	72	1,1,1,2,3,4,2,1	15	1	86·1
11	17 12	421	328	12 41	93	12 52	29·6	14·0	08 02	15·6	17 45	1028	978	05 57	50	2,2,2,3,3,3,2,1	18	1	86·7
12 d	15 41	569	263	22 27	306	22 58	35·3	3·5	22 36	31·8	15 39	1165	819	22 21	346	1,3,2,2,5,4,5,5	27	1	86·2
13	16 10	433	309	10 12	124	12 45	30·2	7·0	03 19	23·2	17 50	1041	840	03 08	201	4,3,3,3,3,3,2,1	22	1	85·6
14	18 42	450	328	08 26	122	12 26	28·7	14·2	04 37	14·5	16 58	1022	981	09 47	41	2,2,2,2,2,2,3,1	16	0	85·0
15	20 21	439	331	07 51	108	14 43	31·3	17·7	06 44	*13·6*	15 36	1023	985	10 55	38	0,1,2,2,2,2,2,1	14	0	85·0
16	19 27	476	2	23 50	474	12 57	30·9	−5·3	23 59	36·2	19 56	1048	689	23 57	359	2,2,2,3,3,3,4,6	25	1	85·3
17	19 33	421	*−261*	00 33	*682*	14 12	31·6	*−48·7*	00 32	*80·3*	12 12	1010	*668*	00 28	342	7,5,4,1,2,2,2,3	26	2	85·8
18	16 58	538	60	23 10	478	20 06	31·9	6·0	23 37	25·9	18 05	1090	804	23 08	286	4,2,2,3,2,5,4,5	27	1	86·2
19 d	05 21	374	131	01 32	243	12 09	31·1	2·5	02 07	28·6	09 50	1047	741	01 35	306	5,3,3,4,		1	81·9
20	15 56	436	290	01 08	146	14 23	30·3	11·9	07 49	18·4	08 21	1030	921	01 35	109	4,3,2,3,3,3,3,1	22	1	82·3
21	19 05	457	306	08 54	151	21 44	32·9	13·9	07 41	19·0	07 36	1024	918	24 00	106	3,3,3,3,2,3,3,3	23	1	81·9
22	19 51	440	321	00 50	119	13 42	32·3	11·7	01 51	20·6	17 48	1004	875	01 30	129	3,2,2,2,3,3,4,1	20	1	84·5
23 q	18 39	390	313	07 46	77	12 57	30·5	16·2	06 36	14·3	06 50	1007	955	16 00	52	1,1,3,3,2,2,1,1	14	0	85·3
24 q	18 26	414	352	10 34	*62*	13 45	32·3	10·9	05 27	21·4	05 13	1007	952	14 27	55	1,1,2,2,2,1,2,2	13	0	85·2
25	17 58	456	330	09 11	126	13 23	28·8	8·6	06 20	20·2	17 25	1030	935	04 56	95	2,3,2,3,3,3,3,2	21	1	84·1
26	16 08	519	323	13 11	196	16 15	36·5	15·7	07 05	20·8	16 26	1104	952	23 32	152	1,2,2,2,4,4,2,2	19	1	85·1
27	19 34	474	318	08 59	156	19 33	32·8	15·3	23 24	17·5	21 27	1044	975	09 40	69	2,3,3,3,3,3,3,3	23	1	-
28	18 35	450	344	10 15	106	15 43	32·2	8·8	06 03	23·4	21 35	1018	966	14 21	52	2,3,3,3,3,2,3,2	21	1	-
29 d	17 29	826	263	20 59	563	18 09	*78·9*	3·1	04 52	75·8	17 29	1175	801	18 09	*374*	2,3,3,3,4,7,6,4	32	2	-
30 q	18 11	418	320	10 55	98	14 21	29·8	14·9	05 09	14·9	18 48	1058	969	00 09	89	2,2,2,2,3,2,2,1	16	0	-
Mean	- -	475	265	- -	210	- -	33·7	8·2	- -	25·5	- -	1054	902	- -	152	-	-	0·83	85·1

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

34 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	379	374	381	385	381	374	364	351	342	336	335	342	352	358	391	404	404	403	404	404	404	396	393	385	377
2	382	385	389	388	380	388	372	343	342	331	343	337	339	360	379	388	391	404	406	410	403	394	385	382	376
3	381	387	388	397	385	385	389	334	315	321	298	345	381	385	400	387	400	403	404	396	396	389	388	382	377
4 *q*	381	377	373	374	373	373	362	351	343	333	328	328	334	350	373	393	397	388	395	396	388	385	380	374	369
5 *q*	373	371	366	373	373	373	366	358	343	334	330	336	354	387	387	396	389	382	388	395	396	391	388	383	372
6	382	387	388	389	388	385	387	381	366	352	344	345	352	364	358	384	408	405	405	412	411	400	387	384	382
7 *d*	378	380	378	381	384	339	376	370	361	349	337	325	328	356	378	395	417	498	498	468	402	353	270	240	373
8	165	215	273	293	307	322	331	348	344	340	343	350	369	378	372	393	381	377	385	393	393	406	400	393	345
9	393	397	318	385	402	390	377	365	358	359	343	349	345	366	404	461	455	398	390	367	370	374	367	363	379
10	370	369	356	362	369	363	359	351	346	346	335	359	370	377	392	403	431	437	424	402	388	382	385	360	377
11	374	377	347	351	379	377	365	346	345	334	330	344	364	377	383	395	399	420	455	424	418	405	381	376	378
12	373	374	370	370	374	362	350	346	342	345	345	352	356	362	375	394	397	406	406	406	398	399	393	391	374
13 *q*	388	388	391	391	392	385	377	372	368	364	362	359	380	398	416	414	409	405	407	407	403	405	402	398	391
14	395	396	395	400	401	402	391	381	361	366	356	360	370	412	402	409	489	516	441	413	400	401	391	371	401
15	366	372	383	380	332	342	387	377	362	348	349	339	370	368	385	385	374	376	388	377	377	374	371	370	369
16	367	366	371	376	377	367	356	348	338	331	303	319	338	363	360	398	413	413	431	424	398	386	383	366	370
17	360	342	364	370	370	352	349	344	324	318	313	321	341	351	372	413	412	408	396	399	399	388	388	376	365
18 *d*	367	371	373	375	379	370	354	346	345	349	352	339	356	374	464	528	605	559	572	489	427	359	356	345	*406*
19	341	288	260	362	368	321	310	310	292	291	299	304	331	424	471	441	435	420	416	403	389	377	362	369	358
20 *q*	356	360	367	369	370	367	358	346	338	332	325	327	339	352	356	373	377	384	399	403	399	392	378	363	364
21	364	366	366	364	377	377	363	362	350	331	324	324	332	348	388	422	439	399	397	394	399	398	378	377	372
22	370	374	374	374	342	361	373	360	348	345	331	331	346	367	392	428	456	448	420	421	413	390	384	398	381
23	363	388	392	389	380	372	363	348	346	373	359	373	322	361	356	384	376	376	403	409	415	404	393	383	376
24	375	371	371	378	378	371	371	366	357	347	343	350	351	350	373	382	387	387	388	396	402	395	389	387	373
25	385	375	368	364	377	376	374	370	353	349	346	346	353	360	391	396	383	439	420	456	443	399	378	357	382
26 *d*	323	351	334	322	345	296	336	358	342	313	315	313	336	394	377	439	448	431	515	596	569	562	526	224	390
27 *d*	37	3	120	-67	-117	-47	-273	226	388	388	394	402	369	379	374	377	374	379	374	358	357	344	356	342	*243*
28	326	319	322	323	318	330	326	323	319	317	315	324	331	352	389	388	374	418	419	423	401	379	348	353	351
29 *d*	333	359	338	330	318	273	280	317	337	319	326	351	365	394	384	380	484	555	456	404	383	366	377	341	365
30	326	324	278	214	325	327	353	343	319	324	332	347	347	432	391	411	503	453	389	375	365	367	362	361	357
31	353	339	349	360	360	360	360	353	342	326	331	332	329	346	356	374	388	374	382	377	387	382	378	374	359
Mean	349	350	350	349	351	346	339	348	344	339	*335*	341	350	372	387	404	419	*421*	419	413	403	392	381	363	369

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, nil.

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

35 LERWICK (D) — 11° + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	22·6	21·6	19·4	18·4	16·9	15·1	14·1	14·3	14·7	16·3	20·2	24·1	27·9	30·4	28·6	27·5	25·9	26·1	26·1	26·1	25·5	24·3	24·3	23·1	22·2
2	22·2	21·2	20·4	23·1	25·3	19·6	16·5	16·3	20·4	20·4	21·0	23·3	25·7	27·3	27·3	26·5	26·3	23·9	23·9	24·7	25·1	25·9	23·9	23·3	23·1
3	22·4	22·4	22·6	21·2	24·9	24·5	19·0	24·1	29·8	24·7	28·4	27·7	25·1	22·0	22·8	24·7	26·5	25·3	26·5	26·7	26·3	25·7	25·3	23·3	24·7
4 *q*	21·8	20·4	18·8	19·4	15·7	15·5	14·9	15·9	18·8	20·8	22·4	24·5	27·9	30·8	28·6	27·1	27·9	27·5	26·7	26·3	25·1	24·5	23·9	22·6	22·8
5 *q*	23·7	22·9	22·6	19·2	16·5	15·9	16·1	16·3	17·3	18·6	20·4	24·3	27·3	28·2	27·3	28·4	26·3	24·7	26·1	26·7	26·9	26·5	24·5	23·5	22·9
6	22·2	21·2	20·4	20·2	19·4	18·4	18·0	18·4	18·8	21·6	22·0	24·7	26·9	28·6	29·0	28·8	26·3	25·9	26·5	24·7	26·5	26·1	24·7	23·7	23·5
7 *d*	22·0	21·2	22·2	23·5	27·9	18·8	22·4	16·7	14·9	16·5	23·5	24·9	31·2	31·4	32·6	32·2	26·5	32·6	34·5	31·8	29·2	25·7	20·8	12·2	24·8
8	5·7	6·1	6·7	6·5	6·1	8·2	11·6	13·1	18·6	20·1	21·8	25·0	27·6	28·5	29·7	29·3	29·0	23·8	24·0	25·3	24·4	23·1	22·8	23·1	19·2
9	23·2	22·5	21·1	13·8	10·4	10·1	12·3	14·1	16·1	19·8	24·5	25·9	24·9	24·9	26·5	28·8	26·5	24·8	26·9	25·3	25·2	22·1	21·5	22·4	21·4
10	21·4	21·3	22·7	21·4	16·7	15·4	15·3	17·4	20·6	21·4	25·0	27·7	35·6	35·6	35·3	28·4	28·6	22·3	24·1	27·9	27·4	26·6	26·0	24·1	24·5
11	22·2	23·0	25·1	22·6	16·0	16·3	14·8	16·3	19·0	17·6	17·6	21·1	24·1	24·9	24·6	25·3	24·6	25·0	23·3	22·3	24·9	22·1	22·3	24·1	21·6
12	21·8	20·6	19·5	17·4	18·1	16·8	17·5	19·7	19·6	20·8	21·1	23·1	26·1	27·2	26·5	24·1	21·4	22·2	23·3	24·2	23·8	24·1	25·2	24·8	22·0
13 *q*	23·6	22·5	22·1	21·2	19·4	17·0	17·1	18·4	20·1	22·3	22·5	27·3	30·9	31·7	29·3	27·7	25·9	24·2	22·0	21·9	23·0	23·5	23·8	22·5	23·3
14	22·2	21·2	21·6	18·6	17·9	16·3	16·8	19·6	23·1	23·3	22·6	25·4	27·3	29·6	30·2	28·4	34·1	31·2	27·3	28·9	27·2	25·3	22·2	18·2	24·1
15	16·4	18·6	19·3	15·1	12·3	13·4	10·8	13·8	14·7	18·0	20·4	25·3	28·0	29·4	28·8	27·1	24·9	24·5	23·7	23·0	22·6	22·5	21·5	20·5	20·6
16	20·4	19·0	18·7	17·8	17·4	15·6	14·6	16·3	18·0	15·6	18·4	24·7	27·3	28·8	27·4	28·1	18·3	24·8	26·3	26·1	25·4	23·3	20·0	18·4	21·3
17	20·3	23·9	17·9	15·4	16·7	18·2	21·8	14·4	15·0	17·5	22·5	26·4	28·5	30·2	29·2	28·4	27·3	26·4	24·2	24·1	24·7	22·5	18·3	16·3	22·1
18 *d*	16·3	16·7	18·3	18·2	15·9	14·8	12·1	12·4	13·5	12·5	16·1	22·6	30·2	32·3	38·7	42·4	32·7	37·0	36·1	28·7	27·6	19·9	18·7	20·3	23·1
19	18·6	18·0	20·1	14·6	23·6	23·4	19·2	22·3	19·7	16·2	17·6	22·2	26·5	22·2	21·7	23·8	23·2	23·3	23·7	25·4	21·1	24·6	23·7	19·9	21·4
20 *q*	23·1	17·6	17·6	15·7	13·3	12·3	11·1	12·1	13·9	15·7	18·9	22·7	27·9	30·2	30·1	28·5	25·4	23·8	23·5	23·1	23·2	23·4	23·6	21·9	20·8
21	18·9	18·3	18·3	19·5	12·8	11·3	11·5	12·5	11·3	18·9	19·9	23·7	28·0	29·6	29·5	29·1	25·2	23·9	23·2	24·3	24·3	22·0	18·7	16·0	20·4
22	15·4	17·9	17·5	15·5	17·4	16·0	10·6	10·8	15·0	17·4	20·5	23·6	27·4	29·3	28·7	29·5	29·1	25·3	22·6	23·8	27·4	23·4	24·3	18·6	21·1
23	14·4	12·6	15·2	15·0	13·3	12·3	12·4	10·9	14·9	20·4	30·9	26·0	31·0	32·0	32·2	30·3	29·6	23·7	23·3	22·9	24·1	23·7	23·1	23·0	21·6
24	22·2	20·8	19·4	19·3	17·5	16·6	17·7	17·2	17·8	19·2	20·4	23·5	26·5	28·2	26·1	24·9	24·1	24·3	24·3	23·1	24·7	25·3	24·9	24·5	22·2
25	22·9	23·3	22·2	20·9	15·9	12·9	14·7	19·1	21·3	25·9	26·1	30·5	32·5	31·5	29·8	28·2	27·6	22·2	21·3	25·5	25·6	24·4	24·1	15·9	23·5
26 *d*	19·4	13·8	12·4	14·5	13·6	18·1	17·1	15·9	13·6	13·5	18·8	24·6	28·5	28·0	26·5	29·3	27·9	27·0	29·9	43·7	63·1	56·6	47·8	48·2	*27·2*
27 *d*	9·0	−22·4	−10·2	−20·4	9·2	−14·3	55·1	−8·1	8·3	14·0	25·9	30·4	30·2	27·1	24·6	22·5	21·3	20·5	18·8	16·8	17·2	16·3	17·1	19·5	*13·7*
28	19·0	17·7	15·7	14·3	13·2	11·9	11·5	10·7	11·3	14·0	17·6	22·2	23·3	24·4	27·3	25·6	23·4	23·6	21·8	21·2	20·9	21·2	25·1	19·6	19·0
29 *d*	22·3	18·9	16·3	17·8	20·6	26·0	25·9	21·2	20·7	20·1	23·0	28·1	33·2	30·3	30·2	27·3	29·8	27·9	25·2	24·4	25·2	24·6	18·9	27·3	24·4
30	20·9	14·8	18·2	19·0	15·7	12·8	9·6	10·1	10·2	14·1	17·3	22·6	26·3	26·1	24·3	25·1	24·1	23·3	21·3	22·3	23·1	22·7	22·4	21·9	19·5
31	26·0	25·3	19·7	17·5	16·8	15·9	15·3	15·8	18·0	18·8	20·5	27·2	30·4	30·7	29·6	27·2	23·7	20·0	18·5	18·9	20·4	22·8	24·5	24·6	22·0
Mean	20·1	18·2	18·1	16·7	16·7	*15·0*	16·7	15·1	17·1	18·6	21·5	25·0	28·2	*28·8*	28·5	27·9	26·2	25·2	24·8	25·2	25·8	24·7	23·5	22·2	22·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

36 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 q	1010	1012	1015	1018	1018	1018	1021	1018	1012	1010	1007	1004	1004	1001	995	1007	1018	1027	1027	1024	1021	1018	1012	1007	1013
2	1010	1007	1007	1004	995	978	998	1010	1001	995	989	992	989	984	984	1004	1010	1012	1024	1018	1012	1010	1004	1004	1002
3	1007	1007	1007	1004	1007	992	998	1010	978	987	992	969	981	995	1010	1012	995	998	1001	1004	1001	998	1001	1001	998
4 q	1007	1004	1007	1007	1010	1010	1010	1007	1004	1004	1007	1004	1004	1004	1004	1010	1007	1010	1010	1012	1012	1010	1007	1004	1007
5 q	1004	1001	1004	1007	1010	1012	1010	1010	1010	1015	1012	1007	984	987	1010	1012	1027	1027	1024	1018	1015	1012	1010	1012	1010
6	1012	1012	1010	1010	1012	1012	1010	1010	1007	1007	1004	1007	1004	1004	1010	1010	1021	1032	1027	1024	1021	1021	1027	1018	1014
7 d	1024	1024	1018	998	944	955	952	989	992	995	998	1007	1007	1010	1035	1055	1092	1084	1084	1075	1061	1050	1015	958	1018
8	895	918	921	927	944	961	972	995	1007	1021	1021	1018	1012	1021	1030	1012	1004	1010	1012	1012	1027	1030	1027	1018	992
9	1000	1001	935	935	988	1008	1000	999	996	992	1010	1021	1024	1043	1064	1084	1118	1098	1050	1032	1014	1013	1012	1001	1018
10	999	998	995	986	997	1007	1007	1005	1001	993	995	981	983	989	1010	1018	1032	1049	1064	1050	1040	1025	1019	988	1010
11	1003	1008	993	933	944	971	988	998	998	1003	1006	1005	1002	1009	1017	1034	1039	1037	1036	1056	1042	1032	1020	1008	1008
12	1001	1002	997	991	989	991	991	989	991	995	995	1005	1009	1009	1008	1014	1021	1024	1023	1021	1014	1009	1008	1005	1004
13 q	1006	1009	1009	1009	1008	1009	1005	1000	1000	995	998	1004	1003	1001	995	1001	1008	1011	1009	1011	1010	1007	1005	1006	1005
14	1008	1008	1008	1005	1003	1001	998	998	998	992	992	989	1001	1012	1051	1087	1092	1098	1078	1041	1028	1011	995	984	1020
15	982	996	1000	995	963	919	961	983	990	985	986	1010	992	1007	1007	1015	1018	1012	1003	1006	1002	998	997	998	993
16	997	998	999	1003	1005	1006	1008	1005	995	983	990	979	983	989	1000	1015	1053	1034	1017	1009	1005	996	967	972	1000
17	958	903	928	969	986	987	961	969	981	984	989	981	981	997	1000	1000	1009	1010	1012	1006	1001	1003	988	969	*982*
18 d	983	986	986	983	987	994	1000	998	987	973	972	975	967	973	967	1009	1090	1082	1077	1076	1050	987	929	920	998
19	913	898	853	896	925	918	943	964	978	997	1030	1049	1058	1083	1103	1094	1095	1086	1070	1049	1030	1003	992	957	999
20 q	954	973	986	999	1008	1012	1011	1007	1001	997	995	990	987	988	990	990	998	1000	1000	1005	1010	1006	999	987	996
21	981	983	985	969	973	992	995	991	987	991	992	995	990	990	991	1000	1020	1029	1020	1010	998	992	973	945	991
22	962	978	984	991	983	950	972	986	995	995	993	989	991	998	1009	1018	1028	1042	1050	1027	1014	1007	989	925	995
23	916	950	975	986	994	997	996	993	987	949	980	984	998	983	982	992	1005	1009	1012	1017	1011	1004	1003	1003	989
24	1003	1004	1004	1003	1005	1003	1004	1005	1005	1000	999	1000	1002	1005	1002	1005	1002	1000	994	991	991	997	1001	1000	1001
25	1000	1000	990	984	979	986	991	984	983	981	989	989	985	987	995	1000	1005	1010	1035	1017	1017	1011	1001	970	995
26 d	925	901	930	915	918	925	919	948	972	998	1002	998	992	1001	1023	1022	1042	1047	1011	987	1110	1053	904	1084	984
27 d	1161	1075	1350	1504	1110	961	1104	829	1008	1030	1035	1048	1042	1033	1031	1035	1041	1039	1035	1040	1034	1036	1031	1029	*1068*
28	1030	1029	1032	1035	1033	1026	1030	1034	1030	1022	1023	1025	1053	1047	1040	1037	1035	1034	1059	1041	1038	1006	953	958	1027
29 d	951	997	1009	1012	1005	978	975	987	1011	1023	1028	1028	1024	1036	1031	1024	1017	1022	1031	1037	1026	1006	979	1003	1010
30	1065	1038	1013	1005	969	1001	1017	1025	1036	1028	1022	1011	1008	1022	1047	1036	1039	1056	1055	1033	1019	1011	1010	1010	1024
31	1000	961	975	1003	1013	1013	1012	1016	1011	1004	1001	995	993	1001	1012	1021	1028	1031	1029	1021	1013	1011	1004	992	1007
Mean	992	990	998	1003	991	*987*	995	992	998	998	1002	1002	1002	1007	1015	1022	1033	*1034*	1032	1025	1022	1012	996	991	1006

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

37 LERWICK — JULY

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force										
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1 q	16 11	414	332	10 09	82	13 40	30·6	13·7	06 23	16·9	18 13	1035	987	14 32	48	1,1,1,2,2,3,2,0	12	0	-
2	18 37	414	325	09 33	89	13 50	28·4	14·7	07 15	13·7	18 08	1038	978	05 05	60	1,2,2,2,1,2,2,1	13	0	-
3	14 50	422	262	10 18	160	10 35	33·3	15·5	06 25	17·8	15 36	1018	955	11 08	63	2,3,4,4,2,3,1,1	20	1	-
4 q	19 00	403	324	12 05	79	13 35	32·2	14·5	05 55	17·7	17 40	1021	1004	00 00	*17*	1,0,0,1,2,3,1,0	8	0	-
5 q	15 33	403	329	10 08	74	13 23	29·0	14·5	05 39	14·5	17 19	1041	975	13 29	66	0,0,0,0,2,3,2,1	8	0	87·4
6	19 49	426	340	11 10	86	13 49	30·0	16·5	05 29	13·5	17 10	1041	1004	12 04	37	1,1,2,1,3,2,2,2	14	0	87·5
7 d	17 47	521	122	24 00	399	17 46	36·7	6·3	23 37	30·4	16 48	1104	864	24 00	240	2,3,4,3,3,4,5,6	30	1	87·5
8	15 24	415	72	00 10	343	14 31	32·1	−2·0	01 47	34·1	13 50	1055	846	00 25	209	6,3,3,2,4,4,2,1	25	1	90·1
9	16 01	482	277	02 25	205	02 13	34·5	7·4	05 43	27·1	16 30	1127	886	02 53	241	5,3,2,3,5,6,3,2	29	1	89·8
10	17 11	450	327	10 29	123	12 34	36·7	19·4	17 55	17·3	18 06	1098	980	23 15	118	2,2,2,3,2,3,3,3	20	1	87·2
11	18 38	473	324	02 48	149	02 50	30·2	13·7	06 25	16·5	19 33	1063	917	03 33	146	3,3,2,2,3,3,3,3	22	1	-
12	17 24	413	338	08 29	75	13 44	27·7	14·6	06 01	13·1	17 53	1028	986	07 18	42	1,2,1,2,2,2,1,1	12	0	87·8
13 q	15 06	424	348	11 09	76	13 12	32·3	16·2	05 38	16·0	19 35	1013	992	09 47	21	1,1,1,2,2,3,1,1	12	0	87·7
14	17 17	554	350	11 06	204	17 15	37·8	14·7	05 31	23·1	17 54	1118	972	23 58	146	1,1,2,2,4,5,4,3	22	1	89·8
15	15 43	403	310	04 55	93	13 40	30·0	7·7	06 42	22·3	02 27	1032	927	05 10	105	2,4,2,2,3,2,2,1	18	1	87·6
16	18 16	444	331	10 48	113	13 35	30·6	12·6	06 26	18·0	16 38	1060	952	22 42	108	1,1,2,4,3,3,3,4	21	1	87·8
17	15 46	429	305	10 38	124	13 25	31·8	11·5	07 25	20·3	18 54	1014	889	01 28	125	3,3,3,2,2,3,2,3	21	1	87·4
18 d	16 24	730	313	22 58	417	17 10	52·1	2·7	22 28	49·4	16 25	1168	866	22 50	302	2,2,2,3,5,6,5,5	30	2	87·0
19	14 03	529	187	02 19	342	03 31	34·2	5·3	02 00	28·9	14 43	1112	808	02 27	304	5,4,2,3,5,3,2,3	27	1	90·0
20 q	19 45	409	321	10 55	88	13 30	30·9	10·6	06 37	20·3	05 53	1014	938	00 08	76	3,2,1,1,1,2,2,2	14	0	88·5
21	15 48	463	318	11 38	143	14 13	31·2	8·6	23 27	22·6	17 09	1035	925	23 37	110	1,3,2,1,3,4,3,3	20	1	88·0
22	16 16	462	325	10 19	137	20 25	31·6	7·1	07 25	24·5	18 13	1059	912	23 45	147	2,3,2,2,3,3,3,4	22	1	88·1
23	19 55	426	301	12 10	125	13 04	33·2	7·8	07 23	25·4	17 20	1035	904	00 38	131	4,2,2,4,3,3,2,2	22	1	88·0
24	20 05	408	343	13 05	*65*	13 11	28·4	15·9	06 15	*12·5*	13 27	1005	985	19 11	20	2,1,1,0,2,2,2,0	10	0	88·0
25	17 08	483	331	24 00	152	12 25	33·5	11·3	23 35	22·2	18 39	1042	967	23 30	75	2,3,3,2,3,4,3,4	24	1	87·5
26 d	20 35	*974*	−95	23 57	1069	20 35	81·2	6·8	18 40	74·4	23 16	1207	735	22 22	472	4,3,3,3,4,3,7,7	34	2	88·2
27 d	09 40	527	*−1775*	06 40	*2302*	06 27	*187·1*	*−110·1*	00 58	*297·2*	03 10	*1468*	*698*	07 10	*770*	8,9,9,6,4,3,3,3	45	2	88·3
28	17 35	462	298	08 38	164	22 28	32·8	8·7	04 52	24·1	18 49	1078	937	22 18	141	2,2,2,2,4,4,3,4	23	1	87·0
29 d	16 40	631	188	05 21	443	17 20	41·1	13·9	02 05	27·2	17 12	1076	897	24 00	179	4,5,5,4,4,6,4,4	36	2	87·2
30	16 52	557	146	03 43	411	00 00	32·5	4·8	07 22	27·7	17 37	1065	872	01 07	193	4,5,3,4,4,5,3,1	29	1	87·2
31	16 04	416	321	10 02	95	13 45	32·4	13·5	06 58	18·9	16 59	1034	951	01 50	83	3,1,1,2,2,3,2,2	16	0	87·0
Mean	- -	483	211	- -	272	- -	39·5	7·0	- -	32·5	- -	1074	920	- -	154	-	-	0·81	88·0

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

38 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	367	357	343	350	365	365	364	354	351	341	328	318	322	338	375	386	395	393	393	392	388	380	376	375	363
2	371	369	369	370	367	369	363	356	349	338	339	328	328	348	356	378	391	400	410	400	396	386	382	380	369
3	377	371	374	371	371	365	356	351	335	326	323	328	342	358	374	381	392	391	388	381	377	378	381	381	366
4	378	382	380	381	380	378	372	360	351	338	337	342	350	355	353	365	380	390	400	395	392	391	385	382	371
5	381	380	380	377	380	381	378	366	355	348	344	356	349	349	363	380	384	394	402	407	398	392	395	392	376
6	390	384	380	381	380	380	376	369	358	340	326	332	360	371	372	384	377	377	394	401	405	394	393	390	376
7 *d*	384	387	383	379	380	383	385	390	353	346	336	340	380	401	505	578	574	567	481	452	395	380	376	375	*413*
8	371	368	368	369	371	366	360	347	336	324	322	326	332	352	368	379	385	386	395	401	404	382	368	375	365
9	379	381	379	378	375	372	367	360	357	350	350	355	360	369	372	375	396	402	407	404	389	385	383	379	376
10	378	376	375	374	374	371	366	354	343	331	327	329	343	363	379	378	392	409	414	408	399	388	381	372	372
11 *d*	355	341	346	375	368	364	368	378	363	361	352	329	356	404	390	386	437	472	452	424	407	381	339	350	379
12	258	325	323	351	372	373	351	349	330	326	320	320	334	350	364	376	392	383	383	390	391	395	367	356	353
13	357	353	361	368	372	369	355	350	348	339	326	322	329	340	351	371	377	380	383	394	387	386	382	379	362
14 *d*	380	379	375	382	390	382	379	321	295	289	295	301	299	389	340	339	363	366	394	436	420	282	348	356	354
15 *d*	323	321	277	267	309	363	365	351	341	330	308	317	337	347	383	375	434	455	428	393	387	375	355	358	354
16	357	340	310	339	366	357	348	333	322	317	323	328	342	357	352	375	389	414	428	451	410	367	296	354	357
17	375	374	373	363	358	342	296	279	292	323	325	310	342	360	382	391	395	399	398	406	392	395	375	370	359
18	367	366	365	367	370	371	368	359	351	331	323	327	342	365	379	384	391	399	392	384	391	394	373	371	368
19	364	353	364	370	369	365	362	359	347	337	341	340	351	356	359	409	376	382	394	394	394	386	383	376	368
20	373	375	366	373	369	367	374	371	355	273	337	338	340	352	367	381	386	387	394	402	394	387	383	380	368
21 *q*	382	378	378	376	375	374	370	365	352	334	322	333	344	359	375	386	385	387	384	384	387	386	383	383	370
22 *q*	384	382	379	375	380	375	366	358	348	337	339	343	349	363	372	379	380	379	379	382	385	386	386	387	371
23 *q*	385	385	382	381	379	375	368	357	345	333	335	343	357	373	373	373	375	376	382	389	394	396	398	401	373
24	400	401	403	399	392	387	374	371	360	352	352	353	358	369	388	388	397	400	397	399	398	389	382	380	383
25	382	382	387	378	374	367	352	335	324	321	334	338	354	364	374	371	383	370	373	381	381	381	380	378	365
26 *q*	376	376	377	377	375	372	363	351	335	320	321	327	340	356	373	384	385	381	377	391	388	387	384	384	367
27	384	383	383	381	376	378	379	356	340	323	322	340	341	356	374	381	385	386	387	393	399	395	385	374	371
28	377	377	372	377	379	375	366	355	339	328	329	334	344	365	357	363	384	399	398	399	392	387	384	383	369
29 *q*	383	382	380	381	380	379	373	365	353	334	327	327	337	351	361	373	391	398	399	396	392	384	384	381	371
30	378	379	379	379	379	377	372	364	353	342	341	345	351	365	379	385	392	408	409	415	401	390	387	375	377
31 *d*	232	315	329	333	201	73	307	362	360	329	317	317	359	399	423	469	512	466	395	365	358	356	353	353	*345*
Mean	366	369	366	369	367	362	363	355	343	331	*330*	332	344	363	375	388	399	*403*	400	400	393	382	375	375	369

Corrections to be applied to all values; *H*, -6γ: *D*, $-4'{\cdot}4$; *V*, nil.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

39 LERWICK (D) — 11° + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	24·4	27·2	24·8	22·7	17·5	18·2	16·9	14·1	12·5	15·3	17·8	22·2	26·2	28·9	28·2	26·8	22·2	21·1	19·1	18·7	20·8	22·0	21·0	22·1	21·3
2	22·7	22·2	23·0	22·3	20·7	16·8	14·8	14·2	14·9	16·6	19·4	24·6	26·4	28·1	26·3	23·9	20·9	19·3	18·9	21·0	22·2	23·3	22·0	23·7	21·2
3	24·2	23·1	22·6	21·6	21·0	17·8	16·8	13·7	13·2	15·8	19·6	23·9	27·2	28·6	28·0	25·0	23·2	22·7	22·1	22·0	21·1	20·6	20·7	20·4	21·5
4	20·4	20·4	20·2	19·5	17·8	15·5	13·9	13·3	15·0	19·1	22·1	27·0	29·2	29·1	28·2	26·4	25·5	24·0	23·9	23·5	23·7	24·0	24·6	24·1	22·1
5	23·2	23·0	21·4	19·8	17·4	15·0	13·8	14·5	16·9	17·7	19·8	25·0	29·4	30·1	28·3	26·1	24·7	23·7	23·7	23·4	22·4	21·2	21·6	21·9	21·8
6	22·5	22·2	21·4	18·4	17·1	15·3	15·6	15·6	16·9	18·8	22·0	26·5	29·1	28·9	29·8	28·4	26·4	23·5	23·4	24·1	24·8	27·8	25·5	24·5	22·9
7 *d*	22·1	23·5	23·3	23·9	20·3	15·4	13·4	14·0	16·3	19·7	23·7	27·8	32·6	32·9	32·6	33·2	37·5	37·0	28·8	18·9	24·5	26·5	24·0	22·5	*24·7*
8	20·2	19·3	18·7	18·3	17·0	16·6	16·6	17·1	17·0	17·2	19·5	21·8	25·5	26·1	25·9	25·0	24·5	24·0	22·7	24·5	23·9	21·3	20·8	21·6	21·0
9	19·9	19·6	17·9	17·4	16·3	15·1	15·8	16·1	17·2	20·3	23·4	27·7	30·8	30·1	28·6	26·0	23·7	21·6	23·0	22·4	22·1	23·7	23·1	21·9	21·8
10	20·8	20·2	19·3	18·2	16·7	14·5	13·2	13·0	14·1	18·4	22·5	28·0	31·1	31·4	30·2	26·3	23·5	22·2	19·7	20·7	23·5	24·7	22·0	18·9	21·4
11 *d*	19·7	22·1	16·0	17·2	19·2	21·6	27·9	21·1	15·1	18·6	23·4	26·4	27·1	29·8	28·9	26·8	28·9	19·8	19·4	25·8	25·9	24·5	23·0	13·2	22·6
12	19·2	5·4	8·8	17·3	16·8	15·5	16·3	14·6	13·7	16·8	21·0	25·0	27·6	29·7	28·4	26·1	25·1	22·7	21·3	22·7	22·9	22·5	20·6	12·1	19·7
13	19·0	18·7	19·5	17·5	13·2	14·3	14·5	14·2	14·6	16·1	19·6	23·6	27·3	28·9	26·8	24·6	21·8	20·6	19·5	20·8	20·9	20·9	20·6	20·1	19·9
14 *d*	19·9	19·6	19·6	18·0	14·9	13·6	11·5	10·4	20·1	15·6	16·9	22·7	34·2	32·7	32·3	29·2	25·8	22·3	24·0	25·1	12·6	30·2	16·1	19·9	21·1
15 *d*	20·9	15·9	4·0	12·5	16·1	8·7	14·6	15·1	13·3	15·3	19·0	22·9	25·6	27·4	28·7	26·5	28·6	21·8	18·6	22·7	21·1	14·0	21·0	20·7	19·0
16	18·9	21·8	19·3	18·3	15·8	11·5	9·8	10·3	14·1	16·9	21·2	24·4	28·3	30·1	27·3	26·6	26·5	26·5	26·8	21·0	12·1	13·7	11·5	11·7	19·4
17	14·1	15·1	16·7	15·9	18·8	20·9	25·7	28·1	18·9	18·9	21·3	24·8	30·8	32·0	31·2	24·6	26·4	25·1	21·2	19·8	22·3	19·6	23·7	20·3	22·3
18	20·4	20·2	20·0	19·1	17·7	15·3	14·3	16·0	15·8	18·8	21·8	25·1	27·2	28·4	28·1	26·1	23·9	22·6	21·4	21·2	21·0	18·8	20·5	19·1	21·0
19	10·2	9·6	14·5	16·6	16·3	15·9	15·0	14·3	15·1	16·4	19·8	24·6	28·3	29·5	28·5	23·4	23·9	21·9	20·7	19·9	19·8	18·5	18·9	19·0	19·2
20	20·6	18·5	18·9	18·0	14·7	16·1	14·6	14·2	14·2	11·3	15·2	20·1	25·9	27·3	27·0	23·4	21·3	20·2	21·5	21·4	17·8	20·3	20·6	19·7	19·3
21 *q*	19·8	20·0	20·6	19·9	18·2	15·3	13·1	12·0	12·9	17·0	21·1	25·8	29·4	30·3	29·6	27·0	24·2	21·8	20·8	20·8	20·6	20·7	19·7	20·8	20·9
22 *q*	20·2	19·9	19·5	18·9	16·6	15·1	13·5	13·4	14·2	16·2	19·1	22·8	26·1	26·8	25·8	23·5	21·2	20·4	20·8	21·3	20·9	20·6	20·6	20·4	19·9
23 *q*	20·0	19·6	19·4	18·2	16·4	14·9	13·4	13·4	13·7	16·6	21·9	27·2	29·1	25·4	22·4	21·8	19·7	19·2	20·7	21·8	21·4	21·3	21·3	21·4	20·0
24	22·0	22·4	20·8	15·9	15·3	13·6	12·4	13·2	15·3	19·4	22·8	26·3	28·6	29·5	28·4	24·8	22·7	20·8	19·8	20·2	20·8	20·7	22·6	20·4	20·8
25	19·7	14·0	13·5	11·3	11·6	11·4	11·9	11·2	12·7	18·1	22·5	25·4	27·7	27·0	23·7	19·8	18·2	16·8	18·8	19·1	20·5	20·9	20·6	20·1	*18·2*
26 *q*	19·0	17·9	18·0	17·7	16·2	15·0	14·2	13·8	14·4	17·9	22·0	25·4	27·3	27·4	25·6	22·3	19·9	19·8	20·9	22·7	21·8	21·8	21·4	20·0	20·1
27	19·6	18·7	18·0	17·7	15·5	12·1	11·4	12·5	12·8	15·7	20·2	26·3	28·1	27·5	25·8	23·8	21·8	20·8	20·8	21·4	22·1	23·4	18·8	18·7	19·7
28	18·5	14·3	14·9	14·6	14·3	15·8	15·1	15·2	17·6	20·9	24·7	27·7	30·4	33·2	30·5	27·2	24·0	22·1	21·5	20·1	21·8	21·0	20·2	19·0	21·0
29 *q*	18·8	18·3	17·7	17·8	16·9	16·2	14·9	15·0	15·3	17·8	21·4	25·9	29·7	29·8	27·7	25·6	23·7	21·8	21·8	21·9	23·0	22·0	21·1	19·7	21·0
30	18·0	17·5	17·1	17·0	17·0	16·5	16·0	16·0	16·4	17·8	20·1	23·6	24·9	26·4	26·5	26·4	25·4	23·7	24·0	21·8	22·0	21·1	17·0	16·9	20·4
31 *d*	21·5	8·3	−1·4	11·0	30·3	20·3	16·5	10·6	12·4	17·5	20·2	19·9	23·8	26·4	29·7	31·7	35·4	31·9	25·8	25·2	22·2	21·3	19·5	17·9	20·7
Mean	20·0	18·7	17·7	17·8	17·2	15·5	15·1	*14·5*	15·1	17·4	20·8	24·9	28·2	*29·0*	28·0	25·8	24·5	22·6	21·8	21·8	21·4	21·7	20·8	19·7	20·8

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

40 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	993	986	986	995	1009	1017	1017	1024	1026	1024	1021	1019	1015	1011	1017	1032	1042	1041	1033	1029	1022	1015	1012	1009	1016
2	1009	1010	1009	1012	1015	1015	1018	1013	1005	1000	1000	1000	1004	1000	1008	1012	1019	1023	1030	1030	1025	1022	1014	1010	1013
3	1005	1005	995	990	990	1001	1009	1016	1019	1012	1000	997	993	997	998	998	1003	1008	1011	1011	1011	1009	1006	1005	1004
4	1004	1002	1003	1005	1006	1006	1006	1008	1006	994	983	975	979	990	998	999	1002	1006	1009	1011	1010	1009	1006	1005	1001
5	1003	1003	1003	1005	1006	1008	1010	1013	1009	1003	1005	998	997	995	992	995	1004	1005	1005	1004	1011	1011	1005	997	1004
6	992	998	1003	1005	1008	1009	1008	1005	1002	997	993	983	980	998	1009	1017	1025	1023	1015	1014	1016	1011	1006	1005	1005
7 *d*	1007	1003	992	952	956	970	988	997	998	998	1001	995	989	1013	1085	1175	1131	1127	1109	1080	1038	1020	1014	1018	*1027*
8	1020	1021	1017	1015	1016	1019	1018	1017	1012	1014	1014	1010	1004	1005	1007	1011	1010	1009	1012	1009	1013	1017	1017	1004	1013
9	1008	1007	1008	1007	1008	1006	1005	1002	1000	996	989	987	986	986	995	1005	1012	1025	1023	1023	1020	1008	1005	1005	1005
10	1005	1005	1005	1007	1008	1007	1009	1009	1005	998	992	986	981	986	993	1005	1006	1014	1023	1024	1017	1008	999	996	1004
11 *d*	984	939	944	975	976	942	926	950	982	992	998	1002	992	996	1015	1026	1024	1072	1070	1036	1032	972	912	918	986
12	853	862	884	929	975	995	994	1002	1005	1005	1003	998	992	994	999	1006	1006	1011	1004	998	998	1001	931	945	975
13	967	975	987	992	989	997	1003	999	997	996	995	988	988	993	997	998	1003	1001	1002	997	998	994	993	994	993
14 *d*	996	997	995	986	983	994	992	1005	990	991	994	1005	1034	1028	1017	1026	1041	1047	1028	1023	1052	905	955	979	1003
15 *d*	936	872	861	900	918	972	995	1009	1017	1015	1017	1004	992	989	995	1021	1015	1059	1070	1040	1025	1014	998	954	987
16	965	953	950	969	987	992	998	1005	1001	996	997	992	986	989	998	998	1002	1003	1009	1028	995	961	811	888	978
17	945	983	992	986	987	981	959	948	958	989	987	992	983	1008	1035	1056	1034	1026	1025	1020	1011	986	960	977	993
18	990	990	991	990	995	1005	1006	1011	1006	1004	1000	995	990	984	994	999	1003	1008	1012	1011	1008	993	986	980	998
19	950	952	969	982	992	1001	1005	1006	1005	998	995	992	990	996	997	997	998	1000	1003	1011	1006	1003	998	993	993
20	987	983	981	985	984	993	995	998	1003	1009	1000	991	992	989	987	979	982	1006	1004	1001	1011	1005	1003	1000	995
21 *q*	998	997	993	994	998	1003	1005	1006	1005	1003	992	983	983	986	991	997	1000	998	998	998	998	998	1000	992	997
22 *q*	987	989	992	995	996	1000	1000	1000	1000	998	992	983	981	986	993	997	997	994	993	992	994	997	998	997	994
23 *q*	998	997	997	998	1000	1001	1004	1004	1003	987	978	978	984	993	995	997	994	990	987	986	989	991	992	992	993
24	991	987	972	976	986	989	993	992	989	986	978	975	975	979	987	1002	1005	1005	1004	999	998	996	992	995	990
25	984	980	975	978	985	992	994	992	987	980	975	974	978	987	994	998	998	1003	993	989	990	990	992	993	988
26 *q*	994	997	998	998	999	998	998	998	1000	995	986	980	975	981	991	995	998	993	987	985	991	990	991	992	992
27	993	994	997	997	997	992	986	989	992	987	982	975	980	984	989	993	998	998	998	995	992	992	993	994	991
28	986	982	987	987	989	989	993	997	994	987	981	975	974	980	992	994	995	1002	1010	1011	1000	996	992	992	991
29 *q*	992	993	995	995	997	998	998	998	997	995	986	975	972	975	981	987	992	1001	1004	1003	998	995	992	987	992
30	992	992	994	995	997	998	997	996	993	992	991	980	979	981	986	992	994	998	1001	994	988	998	992	961	991
31 *d*	804	840	820	818	820	738	784	937	976	995	1004	1004	998	1030	1056	1081	1104	1107	1081	1041	1018	995	998	998	*960*
Mean	979	977	977	981	986	988	991	998	999	998	995	990	989	994	1003	1012	1014	*1019*	1018	1013	1009	997	986	986	996

Corrections to be applied to all values; *H*, -6γ; *D*, $-4'{\cdot}4$; *V*, nil.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

41 LERWICK — AUGUST

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	h. m.	γ	γ	h. m.	′	h. m.	′	′	h. m.	γ	h. m.	γ	γ					°A.
1	17 02	401	11 31	315	86	13 57	29·6	11·9	08 07	17·7	17 12	1047	02 00	980	67	2,2,2,2,3,2,2,1	16	1	87·0
2	18 21	421	12 13	323	98	13 45	28·8	13·3	08 00	15·5	18 47	1035	13 21	998	37	1,2,1,2,2,2,2,2	14	0	87·0
3	16 39	401	10 59	315	86	13 09	29·6	12·4	08 35	17·2	08 40	1023	04 19	987	36	1,2,2,2,2,2,1,1	13	0	86·7
4	18 38	405	10 13	334	71	13 12	29·9	12·8	07 28	17·1	19 27	1014	11 40	974	40	1,1,1,2,2,2,2,1	12	0	86·3
5	19 41	413	10 59	340	73	13 23	31·4	13·4	06 48	18·0	21 08	1015	14 52	989	26	1,2,1,2,2,2,2,2	14	1	86·8
6	20 47	411	10 46	320	91	14 40	30·2	14·3	05 19	15·9	17 03	1030	12 08	975	55	1,1,1,2,3,2,2,2	14	1	87·5
7 *d*	15 47	*623*	10 39	324	299	16 52	41·7	7·7	19 43	34·0	15 26	*1216*	03 34	926	290	3,3,2,2,5,6,4,2	27	1	87·5
8	19 55	421	10 07	320	101	13 35	26·7	15·3	05 37	*11·4*	01 03	1026	16 53	999	27	1,1,1,1,2,2,3,2	13	1	87·8
9	18 59	425	10 15	343	82	12 37	31·4	14·5	05 20	16·9	19 57	1033	12 37	983	50	2,1,1,2,2,2,2,1	13	1	88·3
10	18 13	433	10 52	317	116	13 05	32·0	12·3	07 41	19·7	18 58	1033	12 20	979	54	1,1,1,2,2,2,2,4	15	1	88·3
11 *d*	17 47	498	22 42	308	190	22 03	33·0	8·5	08 31	24·5	17 54	1094	22 41	883	211	3,4,4,3,4,4,4,5	31	1	88·4
12	22 01	438	00 37	183	255	22 17	31·1	1·2	01 27	29·9	17 23	1014	00 36	811	203	5,4,3,2,2,3,2,4	25	1	87·7
13	19 22	402	12 00	317	85	13 30	29·4	10·5	07 49	18·9	06 28	1006	00 00	954	52	2,2,2,2,2,2,2,1	15	1	87·8
14 *d*	20 29	487	21 01	141	346	21 54	*71·7*	−10·4	20 38	82·1	20 27	1084	21 00	820	264	2,2,4,3,5,3,6,5	30	2	87·9
15 *d*	17 02	493	03 19	248	245	14 29	27·8	−0·1	02 33	27·9	17 37	1082	02 04	850	232	4,4,3,3,3,4,4,4	29	1	87·0
16	19 41	469	22 49	245	224	13 44	31·3	−5·5	21 58	36·8	19 42	1053	22 11	765	288	3,3,2,2,3,3,4,5	25	1	86·3
17	21 43	441	07 21	265	176	13 57	35·6	7·5	21 41	28·1	14 57	1062	01 03	915	147	3,3,3,3,4,3,3,4	26	1	86·2
18	17 04	406	10 37	318	88	14 02	29·2	13·4	06 36	15·8	19 05	1016	24 00	976	40	1,1,1,1,2,2,2,2	12	0	85·9
19	18 18	406	09 40	329	77	13 08	31·3	3·0	00 47	28·3	20 05	1014	00 35	938	76	3,2,2,2,2,2,2,1	16	1	84·9
20	19 40	406	10 10	330	76	13 38	28·2	10·7	07 57	17·5	20 35	1014	04 03	979	35	2,2,1,1,2,1,2,1	12	0	85·8
21 *q*	21 04	391	10 36	318	73	13 24	30·5	11·3	07 14	19·2	07 57	1007	11 59	979	28	1,2,1,2,2,2,1,2	13	0	86·4
22 *q*	24 00	390	09 10	336	*54*	13 17	27·2	12·5	07 11	14·7	06 31	1004	12 20	981	*23*	1,1,1,1,1,2,1,1	9	0	86·0
23 *q*	23 59	406	09 32	325	81	12 20	29·4	12·8	06 51	16·6	07 13	1005	10 35	977	28	1,1,1,2,2,1,2,1	11	0	86·9
24	02 46	410	09 16	347	63	13 16	30·3	9·7	06 57	20·6	17 42	1009	02 53	965	44	2,2,2,1,2,2,1,2	14	1	87·1
25	16 30	392	09 25	315	77	12 59	28·7	8·5	03 00	20·2	17 20	1006	02 58	972	34	3,2,2,2,2,2,1,0	14	1	87·0
26 *q*	19 30	397	09 45	317	80	13 26	27·7	13·2	07 55	14·5	16 29	1003	12 46	974	29	1,0,2,2,2,2,2,0	11	0	86·9
27	20 37	400	09 39	319	81	12 03	29·1	10·2	06 05	18·9	18 14	1000	11 56	973	27	0,2,2,3,2,2,2,3	16	1	86·4
28	17 57	410	09 46	327	83	13 28	34·1	12·5	04 08	21·6	19 06	1014	12 10	973	41	2,2,2,1,2,2,2,1	14	1	86·2
29 *q*	17 24	403	10 31	326	77	12 54	30·4	14·2	07 19	16·2	17 57	1005	12 06	969	36	0,0,1,2,1,2,1,1	8	0	86·6
30	18 52	434	23 59	275	159	24 00	32·3	15·0	19 42	17·3	18 27	1006	24 00	923	83	0,0,1,1,1,2,2,5	12	1	86·8
31 *d*	16 52	528	05 18	*−93*	*621*	05 31	70·3	*−15·0*	02 20	*85·3*	17 09	1155	05 46	*588*	*567*	5,7,4,3,4,4,3,0	30	2	86·9
Mean	− −	431	− −	292	139	− −	33·2	8·8	− −	24·5	− −	1036	− −	934	102	−	−	0·74	86·9

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

42 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	362	361	360	360	360	360	357	352	342	333	325	328	333	338	342	356	367	381	386	382	378	378	378	385	359
2	382	369	371	372	372	369	351	353	364	354	350	346	346	341	349	360	376	383	398	397	382	380	376	372	367
3	366	368	371	374	374	376	377	375	362	346	333	321	337	358	369	391	405	393	374	380	381	378	371	380	369
4	389	389	387	389	390	386	356	374	343	324	314	324	339	352	384	400	407	404	403	389	383	375	377	352	372
5	363	367	370	371	373	371	369	349	324	319	320	329	338	359	363	376	414	419	399	388	378	385	390	380	367
6 *q*	377	359	367	352	353	378	378	374	364	346	329	325	335	349	360	368	374	380	382	383	383	383	383	383	365
7	383	385	386	386	382	383	380	376	346	310	325	339	345	372	350	349	368	363	386	384	383	368	378	382	367
8	363	367	370	371	371	368	376	358	352	327	325	334	319	334	343	343	357	365	374	374	357	357	359	354	355
9	359	362	365	365	364	358	350	350	348	344	339	348	359	370	405	398	431	443	421	380	372	372	383	367	*373*
10	372	375	376	374	372	370	365	356	321	300	335	351	361	353	362	357	373	381	380	379	378	385	347	321	360
11	374	372	371	374	378	383	374	367	356	343	334	332	351	350	361	392	381	404	392	389	389	381	376	383	371
12	378	373	373	372	377	374	361	332	327	339	336	335	341	355	345	357	376	381	384	382	386	378	376	372	363
13	376	375	374	376	370	364	380	368	351	335	325	325	331	346	371	359	372	377	387	387	386	385	389	397	367
14	373	362	373	374	377	377	376	369	354	342	338	332	328	338	349	361	371	381	389	392	390	388	378	383	366
15 *q*	377	378	377	377	377	379	377	365	350	338	325	323	330	340	364	391	372	384	392	386	388	385	387	388	369
16	386	382	380	380	380	381	380	373	360	338	327	329	336	357	377	394	451	510	608	227	307	378	333	230	371
17	196	10	141	332	335	332	363	358	350	342	337	342	341	343	362	367	389	403	396	407	374	351	334	251	323
18 *d*	47	114	-218	-193	-193	-32	25	143	148	257	319	373	494	530	605	705	650	516	546	161	331	316	295	288	259
19 *d*	59	49	42	-75	186	303	303	319	332	325	310	316	364	615	556	468	361	342	343	353	347	359	347	327	302
20	337	342	349	349	349	344	328	320	336	332	328	318	315	316	323	342	354	360	389	368	368	362	357	349	343
21	333	357	352	353	355	353	355	358	354	341	334	311	327	341	348	362	360	422	415	406	392	406	390	392	363
22 *d*	360	305	339	306	107	-172	-225	132	253	265	234	527	426	893	833	527	766	693	553	336	310	265	269	295	358
23 *d*	261	39	-33	-72	-112	-87	-267	-43	173	276	313	389	558	651	689	699	686	458	355	356	352	172	145	134	*254*
24	253	276	292	272	334	341	348	339	337	326	320	338	334	340	344	338	343	352	358	358	357	358	358	358	332
25 *q*	358	359	355	359	359	360	359	350	338	323	319	319	320	334	337	334	352	370	370	369	366	366	368	370	351
26 *q*	368	363	363	363	366	366	359	350	345	336	327	323	334	349	353	359	349	363	370	373	376	373	372	370	357
27	370	364	360	371	368	365	354	299	280	314	333	329	341	347	363	429	511	485	414	374	357	274	262	339	358
28 *d*	342	336	266	258	346	370	295	244	292	313	293	324	492	586	574	706	659	707	374	249	201	-98	-28	-38	336
29	-98	-16	140	261	309	336	345	347	345	340	328	333	345	393	423	447	502	466	387	353	349	365	345	306	319
30	282	272	270	257	301	297	321	335	336	331	316	322	343	354	361	377	403	383	387	368	354	353	356	351	335
Mean	315	304	*300*	304	313	315	306	321	326	325	323	339	359	400	409	414	*429*	422	404	361	362	343	338	331	348

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

43 LERWICK (D) — 11° + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	16·4	17·5	17·5	17·3	16·2	15·4	15·4	15·2	16·6	17·2	18·0	20·1	23·5	25·3	25·6	24·6	22·8	22·3	21·6	21·0	20·0	19·6	18·8	19·0	19·5
2	19·6	19·2	18·9	19·0	17·9	14·2	13·4	15·4	15·3	17·0	17·8	22·3	25·4	26·5	27·7	27·2	24·9	22·3	17·8	21·2	20·6	20·0	19·3	19·9	20·1
3	20·8	19·5	22·4	20·8	18·0	16·8	15·2	14·1	13·4	15·7	18·9	22·7	27·2	30·6	30·6	31·8	32·2	23·9	20·2	21·0	20·8	16·3	17·8	20·9	21·3
4	20·1	18·8	16·4	17·0	17·5	17·7	19·9	21·0	18·0	17·8	18·4	24·6	27·5	29·2	30·1	28·8	24·9	18·2	21·8	18·0	16·8	17·8	20·8	20·8	20·9
5	11·2	16·9	18·2	18·0	17·5	15·2	14·0	15·2	17·9	19·7	22·6	24·8	25·4	29·1	28·8	28·3	26·2	22·8	23·2	22·3	22·1	21·6	18·8	17·4	20·7
6 *q*	14·1	12·0	15·1	20·4	23·5	18·9	13·7	11·6	13·1	15·3	17·9	22·0	25·7	26·9	25·9	24·7	23·2	21·8	20·9	20·9	20·9	20·7	20·1	19·7	19·5
7	19·5	18·9	18·9	18·8	18·3	17·5	18·4	18·2	14·4	20·8	29·5	31·3	29·2	32·5	29·7	23·4	21·5	19·2	19·8	17·1	18·9	19·6	20·0	19·8	*21·5*
8	19·6	20·0	16·3	15·4	16·0	15·0	14·4	16·6	17·4	20·9	22·6	25·2	26·9	25·8	24·6	22·8	21·2	21·8	20·9	17·1	19·3	18·5	17·7	10·7	19·5
9	18·9	17·1	16·5	14·6	15·0	14·8	16·2	15·8	15·5	17·2	20·2	23·0	25·3	26·5	27·8	29·2	29·9	27·2	19·4	19·5	20·7	20·7	18·2	18·5	20·3
10	18·6	16·1	17·7	17·1	16·2	15·2	14·5	13·6	15·3	23·3	22·8	24·5	26·9	28·0	28·6	24·0	23·6	22·7	22·4	20·8	20·9	20·6	27·0	20·2	20·9
11	14·4	14·2	15·8	17·1	15·8	16·3	16·3	15·7	15·4	17·3	20·3	23·3	26·1	27·5	26·1	28·2	25·4	25·1	22·0	17·1	21·2	20·6	18·8	16·8	19·9
12	19·1	17·1	16·4	17·2	17·8	16·4	14·7	18·4	20·5	18·6	20·1	24·1	27·3	28·3	25·4	25·0	24·1	22·3	21·7	20·8	19·2	16·4	9·7	17·7	19·9
13	18·9	18·7	17·2	17·7	17·4	20·2	14·5	14·4	15·4	16·4	18·2	21·9	25·3	27·6	28·3	25·7	23·4	22·3	21·6	20·5	19·8	19·9	18·9	15·2	20·0
14	9·8	14·6	16·6	17·7	17·2	17·1	15·9	13·8	13·0	14·3	17·1	22·7	25·0	26·4	26·6	25·3	23·1	21·0	20·9	20·4	19·7	16·9	15·0	15·5	18·6
15 *q*	17·2	17·9	17·1	17·4	16·2	15·7	14·2	12·4	13·1	14·4	18·2	22·8	27·3	27·9	28·3	27·4	23·2	21·5	21·3	20·4	20·8	20·7	20·1	19·6	19·8
16	18·6	17·1	17·3	17·1	17·2	16·8	16·5	15·8	15·1	15·9	19·0	21·2	24·8	27·6	28·3	26·5	29·8	32·7	35·0	16·4	15·3	19·4	17·7	19·2	20·8
17	-0·1	-11·7	2·3	13·9	14·4	20·2	14·7	11·6	13·1	16·0	20·1	24·2	25·3	26·4	24·8	23·8	19·1	22·0	20·4	17·4	15·6	14·8	14·3	22·7	16·1
18 *d*	12·9	8·2	-18·3	8·7	-35·3	12·6	13·4	7·5	12·4	22·7	23·1	20·8	15·7	19·0	27·7	35·5	34·8	29·2	40·4	26·5	20·8	20·7	7·6	6·2	15·5
19 *d*	7·9	1·4	-6·3	4·1	6·6	6·8	8·7	8·7	10·7	14·2	18·5	23·8	28·9	22·4	28·5	22·8	21·9	21·2	20·5	20·9	18·3	18·9	18·9	18·8	15·3
20	14·0	15·5	15·3	15·8	15·9	13·4	15·2	20·7	18·1	15·4	15·0	17·7	20·0	21·5	21·8	22·7	22·4	21·5	21·9	20·6	18·8	17·1	16·2	16·9	18·1
21	20·9	15·1	15·6	15·1	15·1	15·1	14·2	14·0	13·3	15·2	18·0	22·8	27·3	28·5	27·5	24·9	23·5	13·6	18·9	25·4	23·7	23·6	21·7	18·5	19·7
22 *d*	15·1	14·9	11·3	6·6	24·9	18·8	-9·0	-13·0	0·9	14·5	17·4	-26·0	32·9	-21·4	24·9	40·6	24·1	22·7	24·9	9·8	19·8	19·9	10·4	15·6	*12·5*
23 *d*	29·1	16·7	23·2	10·0	24·4	23·7	21·2	1·9	7·1	15·4	15·0	16·4	12·9	22·3	17·5	29·3	37·9	28·6	22·0	20·6	30·3	16·8	2·8	0·0	18·6
24	0·7	7·9	5·9	15·8	14·8	12·7	13·3	12·3	11·9	14·2	17·8	20·7	21·7	24·0	24·7	21·3	18·4	17·8	18·4	18·0	18·9	18·5	18·5	18·6	16·1
25 *q*	18·3	18·7	18·3	18·0	17·7	17·0	15·9	14·6	15·7	17·1	18·9	22·3	23·8	24·5	22·8	21·8	20·1	18·1	17·9	18·1	17·1	18·6	18·5	17·1	18·8
26 *q*	18·1	18·9	17·9	17·6	17·4	16·9	15·6	15·9	15·6	16·2	18·9	22·4	24·7	27·6	26·6	25·6	24·3	21·7	19·9	19·1	18·6	13·2	16·1	17·1	19·4
27	16·8	17·0	19·1	17·4	16·5	15·7	16·9	19·6	20·0	24·1	21·6	22·1	25·0	23·7	24·3	23·5	25·0	18·7	16·9	8·1	12·3	10·3	-1·4	11·7	17·7
28 *d*	15·1	15·7	20·3	10·6	8·4	17·0	25·2	42·1	27·5	19·3	24·2	23·2	19·8	22·6	28·1	31·3	29·8	33·8	28·4	27·3	26·5	1·5	3·5	-1·9	20·8
29	21·8	33·2	-5·3	6·6	10·8	10·1	10·6	10·5	11·9	15·3	18·7	22·7	24·3	25·1	27·0	29·9	27·0	19·8	17·8	10·9	11·4	14·5	14·9	4·0	16·4
30	4·5	2·4	11·3	12·4	19·9	26·5	29·2	27·3	22·5	18·9	20·2	24·5	25·3	24·3	24·2	18·6	15·4	17·9	15·4	2·8	10·2	11·5	17·5	18·8	17·6
Mean	15·7	15·0	*13·6*	15·2	15·0	16·3	15·1	14·7	15·0	17·3	19·6	21·1	24·9	24·5	26·4	*26·5*	24·8	22·5	21·8	18·7	19·3	17·6	15·9	15·8	18·9

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

44 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	998	1001	1001	1010	1010	1001	1010	1013	1010	1000	1006	1004	994	995	1003	1009	1016	1011	1005	1004	1003	999	998	991	1004
2	986	973	962	975	991	997	992	981	979	980	980	986	984	982	983	984	992	1005	1016	1012	1013	1011	999	987	990
3	963	962	967	967	979	987	991	993	995	994	997	994	980	980	992	1005	1026	1053	1041	1019	1006	994	967	981	993
4	986	991	989	992	990	991	993	979	991	993	1004	1017	1006	1017	1024	1040	1052	1059	1034	1037	1030	1022	1006	929	1007
5	928	962	983	991	992	997	1000	1000	1001	999	994	997	1009	1000	1006	1005	1024	1045	1047	1035	1020	1005	981	961	999
6 *q*	942	941	957	961	936	944	973	986	987	993	993	988	982	980	980	984	986	987	987	987	987	989	990	991	976
7	991	990	989	988	990	987	987	983	984	990	975	975	993	1030	1063	1049	1017	1006	1001	1019	1017	971	959	979	997
8	964	947	978	990	1004	1007	998	1010	1010	1004	996	981	990	990	984	981	978	978	984	1013	1001	981	950	947	986
9	973	981	1001	1007	1004	1010	1010	1007	994	991	990	986	986	989	1003	1019	1045	1073	1076	1037	1010	1000	991	996	1007
10	993	997	996	996	995	994	994	991	993	993	981	982	983	995	1005	1004	997	1000	999	998	994	990	939	853	986
11	925	968	984	992	992	989	988	987	990	991	987	987	986	988	992	995	1009	1012	1021	1015	999	995	995	987	991
12	983	987	991	992	992	991	992	992	981	978	981	983	993	1010	1010	995	989	992	993	992	991	995	987	986	991
13	986	988	991	992	991	981	980	986	986	990	987	985	986	986	993	994	992	990	987	988	989	988	980	991	988
14	936	949	972	983	987	989	990	987	986	981	980	979	978	976	976	981	986	987	987	988	990	990	980	950	979
15 *q*	969	978	984	987	987	990	988	989	988	986	981	974	972	971	975	985	994	989	989	992	987	986	983	981	984
16	979	979	981	983	985	986	986	987	986	983	978	969	967	970	970	976	981	1059	1075	939	927	1011	983	800	977
17	828	794	853	885	913	925	956	979	980	986	987	988	992	997	1005	1012	1023	1011	1023	1028	937	976	961	919	957
18 *d*	712	630	365	846	781	737	834	937	1030	1047	1041	1063	1175	1191	1148	1089	1126	1139	1054	980	1065	1035	961	987	957
19 *d*	943	849	703	721	782	907	950	958	980	992	1005	1022	1032	1114	1127	1142	1078	1034	1012	1006	1023	1028	1017	998	976
20	961	973	992	997	996	995	992	974	968	978	991	997	1001	1005	1003	1000	1004	1004	1018	1034	1020	1015	1005	994	997
21	950	959	981	991	992	992	992	991	993	998	995	993	992	992	1005	1011	1011	1005	1023	1029	1036	1031	1017	1028	1000
22 *d*	1005	1038	1020	1017	865	725	821	791	931	992	1011	1172	1132	1019	1114	1062	1059	1072	1090	917	986	922	840	795	975
23 *d*	773	689	620	840	646	751	853	969	1023	1047	1050	1120	1169	1090	998	967	884	1021	1005	1042	1026	854	893	824	*923*
24	913	892	911	922	938	979	989	1005	1011	1017	1017	1023	1017	1011	1008	1011	1011	1011	1005	1004	999	999	998	999	987
25 *q*	998	998	998	1000	1003	1004	1005	1005	1005	1000	996	992	992	998	1008	1008	1004	1006	1011	1005	1009	1004	996	992	1002
26 *q*	986	986	992	998	999	1001	1002	999	993	994	999	1004	1004	1005	1016	1023	1017	1011	1007	1004	998	995	992	988	1001
27	987	987	959	956	979	992	997	1003	998	994	1017	1015	1020	1046	1059	1087	1125	1062	1030	1028	1058	951	924	936	1009
28 *d*	973	983	920	846	846	901	938	930	939	993	1036	1081	1125	1116	1126	934	1034	893	1055	1055	1109	993	871	1041	989
29	1243	890	877	909	956	993	1005	1013	1017	1018	1018	1019	1030	1063	1096	1123	1164	1152	1098	1031	977	999	971	920	*1024*
30	896	885	924	917	902	926	900	944	968	994	1018	1028	1048	1047	1030	1054	1079	1063	1049	1041	1006	1012	1007	998	989
Mean	956	938	*928*	955	947	956	970	979	990	997	1000	1010	1017	1018	1023	1018	1023	*1024*	1024	1009	1007	991	971	958	987

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

45 LERWICK — SEPTEMBER

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force										
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11°·+		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	h. m.	γ	γ	h. m.	′	′	h. m.	′	h. m.	γ	h. m.	γ	γ					°A.
1 *q*	18 02	389	323	10 15	66	13 36	26·7	14·2	06 54	12·5	03 41	1013	995	00 05	*18*	0,0,1,2,2,2,1,1	9	0	87·6
2	18 46	410	336	06 41	74	14 32	28·5	11·0	05 56	17·5	18 42	1022	957	02 23	65	2,2,3,1,2,2,3,3	18	0	87·0
3	16 57	412	320	11 41	92	16 23	33·3	11·9	21 54	21·4	17 41	1058	949	22 07	109	2,2,1,2,2,3,2,3	17	1	87·1
4	17 51	418	298	10 30	120	14 47	31·1	6·1	24 00	25·0	17 16	1077	896	23 53	181	2,2,3,3,3,3,3,4	23	1	87·0
5	17 13	433	310	09 00	123	13 58	32·0	2·9	00 05	29·1	18 13	1050	913	00 00	137	3,2,3,3,3,3,3,3	23	1	87·0
6 *q*	20 30	385	321	10 56	64	13 30	27·2	9·8	01 27	17·4	10 12	997	929	04 23	68	2,3,2,2,2,1,0,0	12	0	86·9
7	18 27	399	293	09 10	106	13 28	34·4	11·3	19 56	23·1	14 30	1067	929	21 54	138	1,1,3,3,4,3,3,4	22	1	86·8
8	18 40	388	319	10 53	69	11 51	28·3	5·0	23 17	23·3	19 31	1024	941	22 55	83	3,2,2,2,2,3,2,2	18	1	87·0
9	17 57	459	336	10 24	123	16 29	32·3	11·8	18 30	20·5	18 25	1130	956	00 06	174	1,1,3,2,3,3,4,2	19	1	87·3
10	21 48	393	270	23 41	123	22 41	38·6	6·3	23 55	32·3	14 30	1009	822	23 32	187	2,1,3,4,3,2,1,5	21	1	87·0
11	15 44	414	318	11 10	96	15 35	29·2	7·7	00 00	21·5	19 09	1025	911	00 00	114	3,1,2,2,2,3,3,2	18	1	86·7
12	22 07	400	312	08 06	88	13 17	29·1	5·6	22 29	23·5	14 10	1016	974	09 00	42	2,1,3,2,2,2,2,3	17	1	86·5
13	23 25	405	321	11 22	84	14 09	29·8	12·6	24 00	17·2	14 59	998	943	23 59	55	1,2,2,1,3,2,2,3	16	0	86·2
14	20 27	398	323	12 05	75	14 04	27·2	7·7	00 31	19·5	21 08	999	931	01 00	68	3,1,2,2,2,2,2,3	17	0	86·0
15 *q*	15 33	407	321	10 50	86	14 04	29·7	10·5	07 58	19·2	16 10	997	962	00 00	35	2,1,2,2,2,3,1,1	14	0	85·3
16	18 48	665	−42	19 48	707	18 51	83·8	−11·5	19 37	95·3	17 50	1137	740	23 50	397	1,1,2,2,3,6,7,6	28	2	85·1
17	19 55	464	−156	02 05	620	23 57	49·3	−41·1	01 50	90·4	19 08	1041	729	24 00	312	6,5,3,2,2,3,5,6	32	2	85·0
18 *d*	15 28	748	−370	02 18	1118	18 52	118·9	*−190·4*	04 03	*309·3*	18 55	1336	*−109*	03 00	*1445*	7,6,6,6,6,6,8,6	51	2	87·6
19 *d*	13 20	863	−232	03 35	1095	14 48	39·9	−20·2	02 06	60·1	13 20	1191	651	03 21	540	6,7,3,3,7,7,2,3	38	2	85·9
20	18 15	404	306	07 10	98	07 15	26·1	8·6	00 18	17·5	18 55	1041	937	00 35	104	3,2,3,2,2,3,3,2	20	1	85·0
21	17 15	460	298	11 20	162	00 08	31·4	1·4	17 40	30·0	21 50	1056	919	00 35	137	3,1,1,3,3,4,3,4	22	1	84·2
22 *d*	13 18	*1857*	−325	05 34	*2182*	05 00	*148·8*	−137·2	13 50	286·0	11 35	*1586*	332	05 30	1254	5,9,9,9,9,7,7,5	60	2	84·0
23 *d*	16 22	1204	*−432*	03 55	1636	16 24	100·6	−30·2	07 35	130·8	12 38	1206	466	02 40	740	7,7,7,5,6,7,5,7	51	2	84·0
24	11 53	374	108	00 01	266	13 09	26·5	−9·5	00 37	36·0	11 42	1031	873	00 01	158	5,5,3,3,3,3,1,1	24	1	83·7
25 *q*	17 43	375	312	12 05	*63*	12 56	25·6	13·3	06 21	*12·3*	20 45	1012	987	23 55	25	1,1,2,2,2,3,2,2	15	0	83·5
26 *q*	20 50	380	316	11 41	64	13 44	30·3	9·5	21 38	20·8	15 29	1028	982	01 35	46	1,1,2,2,2,2,1,2	13	0	83·9
27	17 15	770	152	21 55	618	17 24	45·5	−11·5	17 39	57·0	17 17	1216	870	21 57	346	3,3,4,3,3,6,6,5	33	1	83·2
28 *d*	15 36	1122	−345	20 52	1467	15 39	116·8	−33·4	21 35	150·2	24 00	1165	700	15 39	465	4,5,5,4,6,7,8,7	46	2	84·6
29	16 05	551	−385	01 09	936	01 15	106·3	−28·5	00 14	134·8	00 32	1436	641	01 31	795	7,5,2,2,4,5,5,4	34	2	84·4
30	16 20	413	216	03 35	197	06 05	38·5	−13·1	19 24	51·6	15 52	1091	865	01 41	226	4,5,4,3,3,3,5 3	30	1	84·2
Mean	− −	559	138	− −	421	− −	48·2	−12·0	− −	60·2	− −	1102	820	− −	282	−	−	1·00	85·7

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

46 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	342	344	344	359	364	356	366	343	317	344	335	336	331	343	366	363	350	362	368	368	354	361	367	361	352
2	360	356	352	339	353	363	364	357	334	327	314	311	326	345	348	349	363	355	362	362	367	368	368	370	351
3	364	362	370	369	370	343	369	366	348	333	325	323	341	359	362	369	356	353	363	364	365	367	369	369	357
4	367	365	349	349	370	377	371	364	350	333	325	331	334	340	357	367	367	367	371	375	374	366	369	372	359
5	370	373	371	364	370	373	369	374	359	348	346	333	350	387	404	386	361	387	387	368	371	371	374	372	369
6	370	367	354	346	364	373	372	365	344	321	329	331	337	351	354	363	361	364	368	358	356	360	346	335	354
7	357	365	364	363	373	379	377	370	358	346	344	335	331	337	357	378	366	355	370	373	375	378	378	377	363
8 *q*	374	369	370	370	373	371	372	372	363	350	340	336	335	346	356	368	376	381	390	392	396	391	393	391	370
9 *d*	386	381	376	357	366	366	356	360	359	350	330	340	343	351	354	372	375	373	374	366	368	373	273	284	356
10	360	367	366	364	367	367	367	367	356	341	334	334	347	342	356	363	365	370	374	382	370	358	367	367	360
11	364	371	371	369	367	368	369	364	360	351	348	348	351	367	381	366	361	369	374	375	370	376	377	380	367
12	377	370	356	380	384	368	366	371	359	341	332	331	338	345	355	363	373	373	373	374	374	378	377	374	364
13 *q*	372	372	376	377	380	380	379	372	359	347	336	336	336	345	358	367	372	373	379	383	384	385	385	376	368
14	378	380	378	377	376	381	384	370	349	338	331	324	330	344	357	363	373	379	385	384	378	376	374	377	366
15	378	378	378	378	378	377	376	372	358	333	326	332	345	357	363	370	373	379	380	388	381	381	378	378	368
16	375	374	374	375	377	379	367	366	364	340	337	342	348	347	359	358	373	378	380	373	383	386	373	376	367
17 *q*	375	375	374	373	376	373	372	371	356	344	338	334	338	347	359	367	373	374	378	384	387	385	385	385	368
18 *q*	383	382	381	379	378	377	375	370	360	351	348	349	350	356	364	369	371	376	378	377	378	382	382	385	*371*
19	374	373	372	374	376	377	373	368	359	348	345	347	348	351	359	363	375	383	376	363	369	383	358	301	363
20 *d*	318	333	359	370	388	372	363	367	362	345	333	345	344	348	362	377	376	376	383	371	365	357	363	369	360
21	370	366	367	367	368	366	369	368	360	347	334	330	338	345	352	362	365	371	379	374	374	380	382	381	363
22	380	376	374	375	377	378	379	377	365	347	337	336	335	336	352	360	363	367	373	372	376	377	378	372	365
23	380	380	377	380	379	373	373	373	365	351	349	349	344	350	354	365	371	378	377	379	377	375	373	371	368
24	373	372	372	371	373	376	372	364	355	339	332	328	340	342	357	353	366	367	369	371	375	375	373	375	362
25	357	362	368	375	376	379	381	368	355	332	331	326	330	340	350	365	372	371	363	365	368	366	349	337	358
26 *d*	342	339	362	368	361	360	362	375	360	336	333	322	334	352	369	381	372	375	368	353	323	283	202	105	335
27 *d*	7	59	108	224	303	321	357	336	313	321	335	341	390	458	433	379	419	354	350	361	364	365	328	320	*314*
28	335	360	357	357	357	353	350	357	342	331	332	336	337	342	348	362	357	365	360	364	368	369	369	374	353
29	366	354	354	358	371	375	379	369	357	339	336	342	351	350	351	354	356	362	368	364	357	359	361	364	358
30 *q*	368	370	368	371	371	374	365	368	362	346	338	339	343	350	354	356	364	365	371	374	375	374	372	371	362
31 *d*	371	372	374	373	375	375	372	370	350	340	346	350	351	363	361	367	379	390	386	375	357	349	332	332	363
Mean	355	357	359	363	370	369	370	366	353	341	336	*335*	342	353	362	366	369	371	*373*	372	370	369	361	355	360

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

47 LERWICK (D) — 11° + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	16·1	14·2	16·9	17·2	17·8	19·8	19·0	20·6	18·0	16·8	19·2	22·7	24·2	26·3	27·7	22·5	22·1	21·2	15·7	8·2	15·1	19·3	16·3	14·9	18·8
2	18·7	18·8	17·7	19·0	17·1	16·3	15·1	14·9	15·8	16·0	18·9	22·5	25·2	25·7	24·5	21·9	21·4	18·2	17·7	19·2	20·2	20·1	19·9	19·2	19·3
3	17·1	17·9	15·1	16·0	17·2	23·5	22·9	16·9	15·8	16·7	18·8	23·3	28·3	28·9	27·6	23·9	21·1	21·0	19·9	19·3	19·2	19·0	18·5	18·9	20·3
4	19·4	18·9	19·0	18·3	13·6	17·1	17·7	15·6	17·8	19·6	20·9	25·0	26·4	26·1	25·1	22·3	18·5	18·2	20·2	20·1	18·9	18·6	18·2	18·2	19·7
5	18·8	18·6	17·7	21·5	20·5	15·8	15·1	15·2	15·5	17·9	22·5	23·7	26·0	28·7	32·0	30·3	25·7	25·3	12·6	18·9	19·9	19·7	19·8	19·4	*20·9*
6	18·5	18·2	20·3	21·5	18·9	16·5	15·6	16·2	16·8	18·4	20·9	22·8	24·2	24·9	23·1	21·5	19·5	17·3	17·8	14·0	5·4	12·4	12·9	8·2	17·7
7	14·1	16·0	16·1	18·9	19·0	18·1	17·5	16·3	17·1	17·8	19·0	22·6	22·1	26·9	27·2	26·4	26·1	25·0	21·3	20·1	19·3	17·3	17·9	18·1	20·0
8 *q*	18·1	17·7	18·1	17·6	17·3	17·1	16·8	15·8	15·0	15·3	17·1	19·6	22·4	23·7	23·4	22·6	21·7	21·8	22·3	22·0	21·7	19·9	19·7	19·2	19·4
9 *d*	18·1	16·2	13·4	7·5	11·8	12·9	10·7	19·7	16·8	17·5	18·3	21·1	24·6	25·6	21·6	21·4	20·9	20·9	20·9	20·6	15·1	13·3	18·3	16·3	17·6
10	16·4	15·9	13·6	17·3	17·8	17·2	16·1	15·1	15·3	15·9	18·9	22·0	27·5	27·0	27·1	23·8	21·2	20·9	20·4	20·4	10·4	9·0	14·5	17·7	18·4
11	18·9	20·7	16·8	16·1	16·5	16·8	16·8	15·9	16·1	17·9	21·1	23·7	24·4	26·4	26·5	25·1	21·8	20·8	19·9	14·9	13·3	16·4	18·7	18·9	19·3
12	18·9	17·1	20·9	13·4	15·1	16·9	18·0	12·2	12·5	15·1	18·0	21·1	22·6	22·2	20·9	19·7	19·3	19·7	19·7	19·5	18·9	17·4	17·1	21·4	18·2
13 *q*	22·7	18·0	17·5	17·5	17·3	16·9	16·0	15·4	15·1	16·7	18·6	21·8	23·5	24·1	23·0	21·2	20·3	20·5	20·6	20·2	20·1	19·3	18·9	17·1	19·3
14	15·7	15·6	16·0	17·1	17·5	16·8	14·8	14·0	15·0	14·0	18·3	23·1	26·5	27·2	25·8	22·7	20·1	20·4	21·3	21·0	18·5	19·6	19·1	18·0	19·1
15	19·1	18·1	18·0	17·3	17·1	16·9	15·2	14·1	12·6	14·2	17·9	21·8	25·7	28·1	25·1	21·9	20·7	21·0	19·9	18·9	18·9	18·9	17·4	11·8	18·8
16	15·6	17·2	17·1	17·1	16·7	16·1	16·6	18·0	15·3	15·6	18·9	24·3	27·0	26·2	25·3	22·3	21·3	20·3	20·9	20·3	17·6	10·1	17·1	18·7	19·0
17 *q*	18·9	18·2	17·5	17·7	16·8	15·7	16·3	14·9	13·3	13·9	17·1	20·9	24·4	25·1	24·5	22·7	21·8	21·7	20·8	20·9	20·4	19·6	19·2	19·1	19·2
18 *q*	18·8	18·8	18·9	17·8	17·3	17·1	16·9	16·4	16·0	17·8	20·5	22·7	24·6	24·6	22·8	21·2	20·7	20·4	20·5	20·2	19·8	18·7	19·7	16·4	19·5
19	17·0	17·1	17·1	17·7	17·1	16·6	16·1	15·7	15·1	16·9	18·9	22·1	23·8	24·4	23·5	21·5	20·9	20·9	17·9	18·9	17·9	15·3	16·3	6·6	18·1
20 *d*	8·7	14·1	15·7	15·4	13·9	13·9	20·0	21·1	15·8	14·9	18·0	19·1	23·9	26·3	25·8	26·3	25·4	22·7	20·9	18·3	15·7	9·3	13·9	17·7	18·2
21	17·5	18·9	18·3	17·5	17·1	17·3	17·1	15·6	15·0	15·2	18·2	20·2	22·0	22·5	21·2	20·1	19·8	19·9	20·4	19·4	18·9	19·0	18·8	18·4	18·7
22	17·8	18·3	17·4	17·9	17·6	17·5	17·8	17·3	16·1	17·2	19·9	23·6	24·5	23·7	21·7	20·5	19·7	19·0	19·0	18·9	18·9	18·8	17·2	17·0	19·1
23	19·7	16·8	14·0	15·8	17·1	20·0	20·6	22·1	19·0	20·5	21·6	25·1	23·7	23·5	20·8	19·1	19·6	19·6	19·6	19·1	18·7	15·9	16·1	17·1	19·4
24	17·8	18·8	17·8	17·1	17·0	16·7	16·1	15·2	14·3	16·4	20·0	22·7	26·8	24·7	24·8	26·2	23·2	22·2	21·6	18·9	18·1	17·0	17·6	13·2	19·3
25	12·6	14·5	15·0	16·1	15·8	15·8	15·3	17·1	16·3	17·0	19·9	22·7	25·0	24·6	22·8	20·6	18·9	20·5	18·2	17·0	17·9	16·9	12·0	13·0	17·7
26 *d*	5·4	13·0	13·0	8·5	13·0	23·0	23·4	20·6	21·0	18·1	22·1	24·7	25·9	24·9	24·7	25·3	21·4	21·3	16·8	17·1	13·3	−4·8	2·7	−11·5	16·0
27 *d*	−9·5	6·6	−35·2	−9·0	3·1	23·4	18·9	15·4	17·9	22·7	24·9	28·4	26·5	24·6	33·8	26·3	20·5	20·8	20·4	11·4	11·9	10·6	8·0	20·2	*14·3*
28	17·1	17·1	17·0	18·0	17·6	18·2	19·8	18·8	16·1	15·0	18·0	22·7	23·6	23·6	22·3	21·0	18·7	12·7	19·8	19·8	18·9	18·5	17·0	16·2	18·6
29	15·8	13·9	17·9	20·0	16·4	16·3	16·3	16·8	17·2	19·0	21·5	21·8	24·3	24·9	23·8	22·5	20·9	20·8	19·8	17·2	10·9	15·2	17·2	17·5	18·7
30 *q*	16·5	17·2	16·5	16·0	16·0	16·0	18·9	17·3	16·8	18·0	19·7	21·9	23·1	23·6	23·8	22·4	20·2	20·5	19·6	18·9	18·9	18·9	18·1	17·9	19·0
31 *d*	18·0	18·0	17·5	17·2	17·1	17·1	16·9	16·0	15·9	21·7	22·8	25·6	26·8	29·5	25·6	26·5	24·7	19·8	25·7	17·5	14·2	17·0	19·0	16·1	20·3
Mean	16·1	16·8	*15·3*	16·0	16·3	17·4	17·2	16·7	16·0	17·1	19·7	22·7	24·8	*25·4*	24·8	23·0	21·2	20·5	19·7	18·4	17·0	16·0	16·7	15·8	18·8

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

48 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	968	966	990	991	987	982	977	990	1004	1024	1017	1027	1035	1046	1067	1073	1036	1035	1051	1040	1018	1006	987	989	1013
2	993	998	998	978	973	992	1006	1010	1015	1017	1015	1010	1008	1022	1043	1037	1026	1035	1030	1018	1007	1006	1001	996	1010
3	975	961	964	966	971	969	954	974	992	1000	1000	995	999	1013	1031	1053	1055	1022	1007	1002	1002	1003	1002	1000	997
4	1000	994	977	931	949	964	970	980	988	1000	1000	997	1000	1003	1007	1013	1039	1044	1019	1007	1011	1018	1007	1000	997
5	997	989	994	983	964	980	989	988	996	995	994	1000	999	1006	1044	1101	1055	1050	1092	1030	1013	1005	999	1000	1011
6	996	995	980	956	940	955	977	988	994	1003	994	995	994	996	1002	1009	1017	1019	1025	1031	989	945	939	933	986
7	953	975	982	989	985	987	986	990	995	995	1000	1002	1019	1013	1020	1052	1071	1054	1024	1019	1008	997	988	988	1004
8 *q*	991	995	995	995	995	995	995	996	996	995	995	995	993	993	995	994	992	989	987	989	990	994	994	995	993
9 *d*	995	993	979	957	971	962	956	957	969	983	997	1003	1014	1020	1024	1013	1007	1003	1015	1032	1025	1009	961	824	986
10	929	979	985	991	993	993	991	990	994	994	996	995	996	1001	1002	1007	1002	999	994	990	1019	1002	991	991	993
11	974	973	982	985	990	991	991	991	990	986	985	985	985	990	999	1015	1007	1001	997	1002	999	990	988	985	991
12	988	990	973	949	961	961	947	965	983	990	990	990	990	994	996	996	994	993	994	991	991	988	989	983	983
13 *q*	941	966	984	991	992	992	995	998	999	995	992	989	986	988	991	991	991	990	990	990	988	987	986	990	988
14	991	981	985	991	994	995	995	999	1003	997	992	985	984	985	991	997	996	992	993	991	1002	1000	997	997	993
15	992	992	992	992	994	995	997	999	999	999	992	984	979	984	989	990	990	991	992	991	992	991	988	985	991
16	981	986	990	992	992	992	994	986	987	992	991	986	984	991	992	995	996	1001	1000	1006	1014	990	989	991	992
17 *q*	989	989	990	991	991	992	991	987	992	992	992	987	986	985	986	987	986	987	987	987	987	990	990	990	989
18 *q*	989	988	986	987	988	988	989	993	994	991	986	981	981	985	985	983	983	987	988	990	991	988	988	976	987
19	985	986	988	988	988	987	988	991	993	990	988	987	983	981	985	988	987	991	1002	1012	1005	993	976	900	986
20 *d*	892	948	964	983	975	970	964	953	964	976	978	982	988	992	990	989	994	995	994	1000	1010	1017	998	989	979
21	987	988	977	983	987	988	987	988	990	994	994	995	995	998	996	994	991	989	987	989	989	989	989	989	990
22	990	993	992	994	990	990	988	984	987	988	988	990	995	997	995	995	994	993	988	989	987	984	983	987	990
23	976	966	974	973	971	971	970	970	976	983	983	986	995	1000	1007	1012	1001	995	995	990	990	995	995	995	986
24	992	993	995	995	995	993	995	995	995	995	994	995	995	1006	1013	1011	1002	1005	999	1001	994	988	983	977	996
25	966	950	958	966	972	975	978	982	984	989	986	985	985	986	990	996	1002	1007	1022	1025	1010	998	996	940	984
26 *d*	926	945	923	936	951	944	917	935	953	970	979	991	996	995	997	1008	1034	1036	1050	1039	1015	892	714	649	*950*
27 *d*	879	723	717	851	900	936	918	973	989	1020	1035	1026	1058	1096	1098	1097	1101	1083	1033	1010	929	956	955	924	971
28	906	965	984	990	991	984	979	984	990	997	997	992	997	1003	1005	1011	1021	1016	1009	998	992	991	988	978	990
29	955	957	971	973	979	982	981	986	987	986	986	991	992	1000	1009	1013	1012	1009	1007	1016	1018	1007	993	942	990
30 *q*	963	978	987	991	992	989	987	985	990	995	998	997	998	999	1004	1004	1010	1010	1001	998	994	993	992	992	994
31 *d*	992	993	993	996	995	998	998	998	1003	991	991	993	999	1023	1053	1034	1044	1096	1096	1077	1059	1024	1013	962	*1018*
Mean	969	971	973	975	978	980	979	984	990	994	994	994	997	1003	1010	*1015*	1014	1013	1012	1008	1001	991	978	*962*	991

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

49 LERWICK — OCTOBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force						
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	19 15	399	304	08 44	95	14 21	29·0	−5·7	19 11	34·7	14 58	1079	952	01 19	127	2, 1, 3, 2, 3, 2, 4, 2	19	1	84·2
2	24 00	391	304	11 08	87	12 25	27·6	13·0	06 37	14·6	14 48	1052	961	03 47	91	1, 2, 2, 2, 3, 2, 2, 2	16	1	84·3
3	14 57	378	318	10 54	60	13 34	29·8	13·3	00 40	16·5	16 05	1073	945	06 21	128	3, 3, 3, 2, 3, 3, 1, 1	19	1	84·5
4	20 25	386	317	09 58	69	12 22	28·6	12·7	04 33	15 9	17 08	1050	914	03 34	136	3, 3, 2, 2, 2, 3, 3, 2	20	1	84·1
5	14 50	443	325	11 25	118	14 50	35·5	−1·9	18 45	37·4	18 32	*1134*	958	04 15	176	1, 3, 2, 2, 4, 3, 4, 1	20	1	83·9
6	05 21	379	313	09 21	66	13 47	26·5	−8·7	20 48	35·2	19 32	1039	927	23 20	112	2, 3, 2, 2, 2, 2, 4, 4	21	1	83·5
7	16 24	395	318	13 15	77	16 47	29·8	8·6	00 00	21·2	16 19	1074	940	00 00	134	3, 2, 2, 2, 3, 3, 2, 2	29	1	83·0
8 *q*	20 24	400	332	11 47	68	13 45	23·8	14·4	09 04	9·4	03 29	1001	983	18 55	18	1, 1, 1, 1, 1, 1, 2, 1	9	0	82·9
9 *d*	21 05	394	96	22 55	298	13 10	29·4	5·2	03 50	24·2	19 51	1042	761	23 10	281	2, 3, 4, 3, 3, 2, 3, 6	26	1	83·0
10	19 39	389	320	10 59	69	12 12	30·3	−1·0	20 54	31·3	20 38	1026	868	00 00	158	4, 1, 2, 2, 2, 1, 4, 3	19	1	83·2
11	14 44	396	344	11 10	52	14 40	28·5	8·4	19 48	20·1	15 35	1016	966	00 25	50	3, 2, 1, 1, 2, 2, 3, 2	16	1	83·1
12	04 43	391	327	11 11	64	24 00	27·8	8·5	07 28	19·3	14 45	999	935	06 34	64	3, 3, 3, 1, 1, 1, 1, 3	16	1	82·5
13 *q*	22 30	389	332	11 02	57	00 01	27·8	14·2	08 28	13·6	08 30	1005	930	00 32	75	3, 1, 2, 1, 1, 1, 1, 2	12	0	82·9
14	18 45	390	320	11 09	70	12 45	29·1	12·5	09 23	16·6	21 00	1004	977	01 50	27	2, 1, 2, 2, 2, 1, 2, 1	13	0	82·4
15	19 27	392	324	10 33	68	13 50	28·9	9·7	23 35	19·2	07 40	1002	978	12 55	24	0, 0, 1, 2, 2, 1, 1, 3	10	0	84·2
16	21 13	410	333	09 57	77	11 40	28·6	7·9	21 38	20·7	20 13	1021	976	00 22	45	2, 1, 2, 2, 2, 1, 3, 3	16	1	85·0
17 *q*	20 40	394	334	12 20	60	13 40	25·5	12·5	09 11	13·0	09 43	993	983	12 40	*10*	0, 1, 1, 1, 1, 1, 1, 1	7	0	85·1
18 *q*	23 00	399	345	10 26	54	13 40	25·5	15·2	23 22	10·3	08 28	996	969	23 09	27	1, 1, 0, 1, 1, 1, 0, 2	7	0	85·8
19	21 25	394	251	23 54	143	13 19	24·9	3·1	23 54	21·8	19 15	1016	853	23 54	163	1, 1, 1, 1, 1, 2, 3, 5	15	1	85·9
20 *d*	04 18	406	272	00 01	134	15 07	28·9	3·8	00 14	25·1	21 08	1030	856	00 00	174	4, 3, 3, 2, 2, 2, 3, 3	22	1	86·0
21	21 20	391	327	11 35	64	01 57	23·7	13·6	09 25	10·1	13 41	1000	972	02 30	28	2, 1, 1, 1, 1, 1, 2, 1	10	0	86·8
22	00 33	383	329	13 19	54	11 55	25·7	13·8	08 54	11·9	13 20	1000	981	22 48	19	1, 0, 1, 1, 2, 1, 1, 2	9	0	86·9
23	00 55	391	339	12 09	52	11 57	26·8	12·4	02 39	14·4	15 17	1015	963	01 03	52	3, 2, 2, 2, 2, 2, 0, 2	15	0	84·0
24	20 35	382	322	11 00	60	12 50	27·5	10·2	23 23	17·3	14 05	1014	968	24 00	46	1, 1, 1, 1, 2, 2, 1, 2	11	0	84·4
25	06 48	383	319	23 02	64	12 52	25·4	4·0	24 00	21·4	19 18	1032	894	23 59	138	3, 1, 2, 1, 1, 2, 2, 3	15	1	83·1
26 *d*	22 00	411	−27	24 00	438	22 12	39·6	−33·6	23 50	73·2	18 13	1068	*552*	23 50	516	3, 4, 3, 2, 3, 2, 4, 7	28	2	81·2
27 *d*	13 05	*470*	*−355*	00 28	*805*	01 22	*46·1*	*−52·9*	02 32	*99·0*	14 29	1132	601	02 17	*531*	8, 6, 3, 3, 4, 4, 5, 4	37	2	81·5
28	23 51	381	289	00 01	92	13 17	24·6	8·3	17 12	16·3	16 21	1023	884	00 01	139	4, 2, 2, 2, 2, 3, 2, 2	19	1	81·1
29	06 28	380	325	11 06	55	12 58	26·1	8·5	20 34	17·6	20 16	1023	932	23 20	91	3, 2, 2, 2, 2, 1, 3, 3	18	1	80·0
30 *q*	05 49	376	333	10 28	*43*	14 23	24·3	15·1	07 50	*9·2*	17 01	1015	949	00 00	66	1, 1, 2, 1, 1, 1, 1, 0	8	0	83·1
31 *d*	18 15	406	284	03 27	122	13 48	32·3	6·6	22 18	25·7	17 22	1132	955	23 40	177	0, 0, 2, 2, 3, 4, 4, 3	18	1	84·5
Mean	− −	396	279	− −	117	− −	28·6	4·9	− −	23·7	− −	1036	912	− −	123	−	−	0·71	83·7

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

50 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	325	308	311	321	332	351	353	335	322	311	295	314	354	355	370	390	453	385	363	356	350	278	353	357	*343*
2	366	363	363	364	368	373	353	346	350	341	335	331	337	346	354	360	364	367	369	375	364	358	365	365	357
3	354	368	371	371	376	380	376	370	363	354	353	353	353	355	363	364	367	371	375	375	378	375	376	372	367
4	367	373	371	375	380	381	380	377	371	360	352	338	343	357	352	362	368	372	375	376	376	374	371	369	367
5	371	371	370	372	378	384	385	377	364	361	351	349	350	364	367	375	379	383	386	396	390	396	385	382	374
6 *d*	375	376	368	368	379	379	375	367	369	345	324	329	350	350	349	340	374	398	360	360	361	359	357	376	362
7	346	354	355	350	355	360	364	365	358	346	340	335	336	344	352	355	364	362	366	370	371	371	369	368	357
8	367	365	367	368	370	371	370	369	364	350	346	346	342	354	359	364	367	375	377	368	375	376	375	370	365
9	359	350	358	362	362	368	371	367	362	348	343	346	356	362	359	359	366	373	378	380	381	383	374	368	364
10	368	366	356	368	372	375	377	374	369	356	355	355	359	360	364	370	366	371	380	373	360	342	358	370	365
11	366	359	360	324	352	359	371	362	349	348	348	352	358	359	364	367	376	374	377	380	382	391	365	370	363
12	368	375	356	338	319	341	350	357	356	356	353	344	346	350	355	355	359	363	366	366	369	369	370	368	356
13	367	369	368	368	369	371	368	366	362	354	351	348	349	354	355	366	369	378	364	370	375	367	364	362	364
14 *q*	369	370	369	370	371	372	372	370	366	359	355	354	349	351	362	366	370	375	376	378	379	381	378	373	368
15	375	374	373	373	375	376	376	374	374	359	371	371	372	381	378	388	391	393	396	406	426	408	391	386	*383*
16	365	346	341	342	374	375	369	358	352	352	349	348	351	355	359	366	371	377	373	354	355	359	363	366	359
17	371	370	367	353	373	372	370	370	367	357	353	354	355	357	363	366	370	374	378	379	378	370	359	354	366
18	370	366	370	371	374	375	375	374	370	359	358	357	355	362	370	372	380	381	381	380	380	380	379	366	371
19	350	345	357	369	369	371	389	384	357	336	337	350	356	358	370	359	370	377	379	381	370	350	349	350	362
20	354	365	363	364	355	360	367	369	368	363	364	366	367	375	349	366	377	376	376	375	376	375	374	384	368
21 *d*	369	366	369	368	371	375	381	380	383	357	342	327	353	358	380	371	360	362	353	357	364	361	360	332	362
22	332	340	353	346	362	367	371	359	341	356	352	354	355	357	353	357	358	369	368	371	369	367	370	364	358
23	367	352	366	371	372	369	370	374	367	345	349	341	345	349	355	362	368	372	373	375	376	378	378	376	365
24 *d*	375	372	374	379	403	398	385	384	379	360	360	361	367	350	349	364	367	357	356	357	360	361	361	360	368
25 *d*	357	355	353	350	357	364	374	370	359	338	346	342	341	349	348	352	361	365	364	365	386	367	364	353	358
26	365	363	344	339	371	376	366	363	358	350	345	339	346	352	353	359	370	368	372	375	374	372	371	373	361
27 *q*	374	374	372	373	375	374	374	372	366	357	356	357	361	363	367	371	378	378	379	379	378	377	376	376	371
28 *q*	374	375	378	379	380	380	380	382	379	372	362	357	358	361	370	374	375	376	378	378	378	378	378	379	374
29 *q*	378	378	379	381	382	382	383	381	375	366	361	358	364	368	372	375	378	380	381	381	379	378	381	376	376
30 *q*	375	375	375	375	379	382	382	383	378	368	364	363	364	362	365	375	378	378	378	380	380	375	364	363	373
Mean	364	363	363	362	369	372	373	369	363	353	349	*348*	353	357	361	366	373	374	373	374	*375*	369	369	368	365

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

51 LERWICK (D) — 11° + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	10·9	10·2	15·2	11·4	19·7	19·2	21·7	18·9	18·0	20·7	22·6	23·3	25·1	23·3	24·9	23·0	27·8	20·8	12·5	15·4	11·3	9·7	4·9	14·7	17·7
2	18·2	17·3	17·5	17·2	17·5	17·4	21·3	25·6	17·8	17·5	19·3	22·0	23·0	22·5	21·4	20·4	19·0	18·7	16·9	8·7	9·7	12·1	15·0	19·2	18·1
3	20·5	19·0	16·4	16·9	17·1	17·2	17·5	17·3	15·8	15·4	16·5	18·0	19·1	19·4	19·4	18·8	19·2	19·7	19·4	18·6	18·4	17·4	13·7	15·7	17·8
4	18·8	16·4	17·5	17·7	17·8	17·7	17·4	16·6	15·7	16·3	18·2	20·7	23·1	24·2	22·3	21·9	20·9	19·9	19·1	18·2	18·1	17·5	17·0	16·0	18·7
5	17·2	17·1	16·3	16·2	15·9	16·0	17·5	18·0	16·3	17·6	20·9	22·7	23·7	24·1	25·1	24·7	23·2	22·3	21·3	21·6	19·4	19·0	18·1	17·5	19·7
6 *d*	16·2	13·8	15·9	16·6	14·6	14·7	14·6	17·5	20·6	17·8	16·6	20·4	22·2	27·5	30·4	26·2	27·9	25·1	21·0	19·4	16·6	15·6	13·7	12·1	19·0
7	13·2	14·7	13·6	14·8	17·1	15·5	15·6	15·5	13·8	13·8	15·2	17·5	19·8	21·2	21·8	21·0	20·8	20·8	20·5	19·5	18·3	17·5	16·6	17·0	17·3
8	17·5	17·4	17·2	17·5	17·4	17·1	17·0	16·6	15·6	14·7	16·4	20·4	21·0	23·2	21·5	20·9	20·2	20·4	20·9	18·5	18·6	18·3	16·6	10·5	18·1
9	6·2	8·8	14·4	14·8	16·9	15·6	16·0	15·6	16·0	17·1	19·1	23·1	24·2	25·7	24·4	23·6	20·5	19·9	19·7	19·4	19·7	18·3	13·6	12·1	17·7
10	17·5	18·4	17·0	14·9	15·5	16·5	16·9	16·6	16·7	16·8	18·2	20·1	22·0	22·3	22·6	22·7	22·2	21·8	22·6	12·2	5·7	5·0	11·6	17·0	17·2
11	15·6	15·2	17·4	9·4	12·9	14·6	15·0	15·6	15·4	17·0	19·8	20·2	20·0	22·3	22·6	21·3	22·0	21·0	20·9	19·8	17·6	8·7	13·7	15·9	17·2
12	16·3	19·0	11·1	6·3	12·1	12·3	12·6	14·3	14·2	14·7	15·3	18·0	20·2	20·9	21·7	20·2	19·8	21·1	14·9	11·6	16·5	17·4	16·2	17·1	16·0
13	17·5	16·6	17·1	17·3	17·5	16·6	16·7	16·3	16·0	16·8	17·0	19·1	20·6	21·7	21·5	21·1	20·4	21·2	20·6	18·8	18·3	15·2	14·7	18·8	18·2
14 *q*	16·9	16·8	16·9	17·0	17·1	16·8	16·4	16·1	16·1	16·5	17·9	21·5	22·1	21·7	22·2	21·1	20·4	20·2	19·8	19·4	19·3	17·1	17·2	17·1	18·5
15	17·6	17·5	17·1	17·0	16·9	16·9	16·4	15·7	16·0	17·9	18·0	20·7	21·8	25·5	25·6	27·0	27·0	32·0	26·6	27·4	22·9	17·6	15·6	10·5	*20·3*
16	2·0	7·7	11·4	13·6	15·3	14·3	15·2	15·3	17·1	16·3	18·7	20·1	22·6	21·5	20·9	20·1	20·4	21·3	20·2	13·5	16·5	6·6	12·9	15·8	15·8
17	16·0	16·6	16·1	20·0	17·2	15·6	15·6	15·6	15·4	16·1	16·5	19·0	20·2	20·8	20·9	20·0	19·0	19·6	19·4	18·9	19·3	14·2	10·4	13·2	17·3
18	12·1	14·1	16·1	15·9	17·0	16·8	16·4	16·2	16·0	16·2	16·4	18·9	20·6	21·1	21·8	20·4	19·5	19·5	18·9	18·6	17·7	17·5	17·2	12·4	17·4
19	2·7	6·7	10·9	14·5	13·0	13·7	17·0	19·6	16·8	19·1	17·5	17·9	20·4	22·5	23·2	21·3	18·0	19·3	20·6	23·1	15·6	11·4	3·9	7·9	*15·7*
20	7·5	13·1	15·1	12·6	18·0	17·7	14·8	15·7	16·1	17·0	18·0	20·7	21·3	23·2	24·8	20·9	21·2	20·1	21·9	19·8	19·2	18·9	17·4	16·8	18·0
21 *d*	15·0	16·3	15·0	14·9	14·5	15·5	15·0	16·1	16·6	16·1	19·3	24·5	27·7	30·2	18·9	22·3	19·0	18·3	13·4	15·4	17·5	14·2	−0·2	1·3	16·5
22	11·4	15·2	16·2	19·6	18·1	19·8	20·3	19·8	20·0	21·5	20·0	20·8	20·2	21·5	19·4	19·0	10·2	13·7	18·2	17·5	15·1	16·0	16·4	15·3	17·7
23	16·0	20·8	17·7	17·5	17·0	16·8	19·6	18·4	17·4	17·2	19·6	21·1	22·1	23·4	22·8	20·8	19·8	19·0	17·9	17·7	17·3	17·2	17·0	16·6	18·8
24 *d*	15·5	15·4	17·3	18·9	20·4	19·0	20·4	28·2	23·7	19·5	20·6	24·6	27·3	26·8	23·7	22·7	19·9	18·9	17·9	17·0	16·0	15·6	15·5	15·6	20·0
25 *d*	16·0	15·9	15·6	16·8	16·3	15·5	16·3	17·5	16·4	20·2	20·8	21·5	23·6	23·9	21·3	10·6	19·4	18·5	17·8	11·6	13·7	15·1	12·1	9·8	16·9
26	13·8	14·2	16·5	21·0	15·2	16·6	16·8	15·6	15·5	16·3	17·1	19·0	21·4	21·7	20·9	20·7	13·9	19·0	19·3	18·4	17·6	17·1	16·7	16·5	17·5
27 *q*	16·9	17·1	16·5	17·4	17·0	16·7	16·4	16·9	16·9	17·1	18·1	19·8	20·7	20·9	20·9	19·9	19·4	19·3	18·9	18·6	17·9	17·2	16·5	16·5	18·1
28 *q*	16·4	17·2	17·3	17·7	17·4	17·0	17·0	17·5	18·9	18·1	18·2	19·2	21·6	21·0	21·4	20·6	19·2	18·7	18·2	18·0	17·3	16·9	17·2	17·2	18·3
29 *q*	17·2	17·6	17·6	18·0	17·8	17·6	16·6	16·2	15·8	16·2	17·3	18·9	20·7	20·9	19·9	19·1	19·0	18·6	18·3	18·2	18·0	17·4	17·0	15·5	17·9
30 *q*	13·0	15·5	16·5	17·0	17·1	17·0	16·5	16·4	16·3	16·0	17·1	18·2	20·0	20·9	20·0	19·7	18·9	19·0	18·8	17·8	17·9	12·8	11·3	11·4	16·9
Mean	14·4	15·4	15·9	16·0	16·6	16·5	16·9	17·4	16·8	17·1	18·2	20·4	21·9	22·9	22·3	21·1	20·3	20·3	19·2	17·7	16·9	15·1	*14·0*	14·4	17·8

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

52 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	960	935	913	912	939	942	962	981	999	1008	1023	1036	1059	1063	1067	1097	1165	1134	1065	1041	1029	937	926	959	1006
2	974	989	993	994	994	993	994	980	981	990	994	999	1004	1005	1005	1000	999	999	1000	999	993	985	982	981	993
3	957	949	969	985	988	988	989	992	996	998	997	995	994	992	992	995	996	994	993	993	992	995	995	994	989
4	984	982	989	989	988	989	989	993	998	1000	1000	1003	997	999	1001	997	996	995	998	1001	1005	1003	995	999	995
5	1001	1001	1001	1000	995	990	984	988	994	994	994	994	994	994	998	994	993	991	990	988	994	994	1000	1000	994
6 *d*	1005	1005	1006	1001	995	994	994	988	983	998	1006	1012	1011	1013	1037	1069	1055	1102	1038	1019	1013	1013	1013	976	*1014*
7	946	982	988	990	970	971	984	993	1000	1001	1006	1006	1005	1001	1003	1006	1006	1004	1000	1000	998	998	995	999	994
8	1001	1001	1001	1001	996	995	995	994	995	996	995	990	996	995	995	995	996	995	995	1002	997	995	998	1001	998
9	989	980	977	993	1001	999	996	995	994	996	996	995	996	998	996	999	1000	996	994	990	991	995	1019	1017	998
10	1007	996	963	985	991	990	989	990	991	995	996	996	996	997	998	1001	1002	1000	998	1021	988	1007	1007	998	998
11	996	995	953	890	950	986	988	989	996	995	995	993	991	990	994	996	996	998	997	996	1001	996	996	995	986
12	996	984	937	888	925	922	968	983	995	995	996	997	996	997	1002	1006	1008	1012	1020	1020	1007	996	995	990	985
13	988	989	994	995	996	995	996	996	995	996	996	995	995	993	994	995	995	995	1002	1004	997	1001	1000	984	995
14 *q*	982	989	990	990	990	991	991	991	993	990	990	990	994	990	989	991	990	990	992	993	995	995	994	995	991
15	990	989	989	989	989	989	989	990	990	985	977	976	976	971	978	995	1001	1015	1056	1052	1102	1094	1057	1028	1007
16	1007	1000	965	956	966	983	988	991	995	995	995	997	998	998	994	991	990	991	1000	1021	1013	953	969	982	989
17	984	986	983	977	971	983	987	988	995	996	995	995	990	989	988	987	984	987	983	985	989	1002	990	989	988
18	949	966	979	982	982	982	983	984	987	988	990	989	988	988	988	988	984	984	985	984	985	988	989	992	983
19	990	967	960	970	980	977	968	969	983	989	990	1000	1001	1000	1001	1008	1007	1001	1005	1032	1060	1037	947	953	991
20	964	988	995	991	976	960	978	984	988	989	990	990	989	995	1007	996	986	984	1001	1002	1001	1007	1001	987	989
21 *d*	982	977	982	984	983	984	983	982	978	989	990	1004	1007	1029	1065	1039	1019	1013	1020	1012	998	995	961	930	996
22	926	922	947	949	957	966	965	976	982	983	986	994	998	1004	1009	1008	1026	1019	1002	1001	1001	996	980	966	*982*
23	976	977	969	978	982	984	982	983	990	990	991	996	1000	1008	1014	1008	1007	1001	995	990	989	987	988	990	991
24 *d*	989	990	988	985	965	969	972	961	969	979	978	983	1000	1042	1043	1037	1018	1008	1001	999	998	996	995	997	994
25 *d*	997	1001	1000	999	996	995	990	989	993	995	989	995	1002	1025	1027	1049	1025	1018	1042	1026	971	985	987	929	1001
26	951	977	972	917	950	969	980	987	990	987	987	986	988	988	995	1000	1007	1002	999	995	995	994	992	990	983
27 *q*	989	987	989	990	990	990	990	991	993	990	990	990	987	985	988	990	990	990	990	989	989	988	990	988	989
28 *q*	988	987	984	987	985	986	984	983	983	983	988	987	988	987	988	989	989	990	990	989	989	989	987	983	987
29 *q*	983	983	983	983	984	986	988	989	989	989	988	988	989	984	988	989	989	989	989	989	989	989	988	983	987
30 *q*	980	980	980	982	983	983	988	988	989	990	991	990	988	987	988	989	990	990	990	990	990	992	986	988	987
Mean	981	982	978	*974*	979	981	985	986	990	992	993	995	997	1000	1004	1007	*1007*	1006	1004	1004	1002	997	991	985	993

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

53 LERWICK — NOVEMBER

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1 *d*	16 20	*496*	*192*	21 53	*304*	16 20	37·1	*−17·8*	22 03	*54·9*	16 26	*1192*	*809*	21 53	*383*	3,3,3,3,4,5,4,5	30	2	84·1
2	19 07	386	326	11 29	60	07 08	30·2	6·8	19 57	23·4	12 55	1007	969	07 38	38	2,2,3,1,2,1,3,3	17	1	–
3	22 00	383	346	00 48	37	00 00	24·2	11·9	22 39	12·3	22 18	999	940	01 21	59	3,1,2,0,1,1,1,2	11	0	81·4
4	00 55	383	334	11 10	49	13 27	25·6	14·0	23 26	11·6	20 15	1007	968	00 53	39	2,0,1,2,2,1,1,2	11	0	81·4
5	19 00	404	332	11 43	72	12 13	29·1	13·8	08 44	15·3	02 30	1004	981	06 18	23	1,1,2,3,3,2,2,2	16	1	84·8
6 *d*	17 22	453	306	10 48	147	14 43	36·6	4·6	23 46	32·0	17 26	1141	915	23 56	226	2,2,3,3,4,4,3,4	25	1	86·0
7	21 55	374	317	00 18	57	14 48	22·5	6·2	00 29	16·3	16 00	1010	914	00 03	96	3,3,2,1,2,1,1,1	14	1	86·7
8	18 37	382	336	12 28	46	13 32	25·1	4·6	24 00	20·5	19 45	1007	989	11 35	18	1,0,1,2,2,1,1,3	11	0	86·0
9	21 30	387	339	10 00	48	13 27	27·4	3·1	00 15	24·3	22 31	1033	976	02 30	57	3,2,2,2,2,2,1,4	18	1	85·6
10	19 59	401	320	20 54	81	13 54	25·5	0·7	19 57	24·8	19 44	1038	953	02 32	85	3,2,1,1,2,2,4,3	18	1	85·1
11	21 10	412	304	03 15	108	14 08	23·6	−1·3	21 07	24·9	21 04	1018	868	03 25	150	4,4,2,2,2,2,4,3	23	1	85·0
12	01 36	390	285	04 35	105	04 45	27·0	0·2	04 25	26·8	18 58	1031	854	03 45	177	4,4,3,2,2,2,3,1	21	1	84·9
13	17 49	386	343	12 19	43	17 55	23·1	10·7	22 03	12·4	19 03	1011	974	24 00	37	1,1,1,1,1,2,2,3	12	0	85·4
14 *q*	21 34	393	345	12 48	48	12 18	23·3	12·9	21 30	10·4	22 05	997	976	00 00	21	1,1,1,1,1,1,1,2	9	0	84·4
15	20 14	444	340	08 00	104	17 43	33·6	−2·4	24 00	36·0	20 40	1129	966	13 43	163	0,0,3,2,3,3,4,4	19	1	83·0
16	00 01	416	320	03 03	96	13 15	24·4	−2·3	21 31	26·7	19 30	1030	930	21 16	100	4,3,3,1,2,1,3,4	21	1	82·1
17	21 51	398	342	03 17	56	03 48	22·3	6·2	22 05	16·1	21 39	1019	961	04 07	58	2,2,1,1,1,2,1,3	13	1	82·0
18	18 04	384	349	23 55	35	13 57	23·2	6·6	23 55	16·6	23 59	1000	941	00 45	59	3,1,1,1,1,1,0,3	11	0	82·7
19	22 12	433	285	22 37	148	19 44	28·1	−15·7	22 29	43·8	21 11	1079	879	22 35	200	3,2,3,2,2,2,4,5	23	1	83·0
20	17 51	401	344	04 27	57	14 15	26·3	4·1	00 13	22·2	18 54	1031	952	05 08	79	3,3,2,2,3,3,3,2	21	1	83·0
21 *d*	15 00	397	314	11 09	83	13 43	32·8	−12·1	22 40	44·9	14 30	1086	920	23 46	166	3,1,2,3,4,3,2,4	22	1	82·3
22	16 56	393	318	00 03	75	05 52	24·9	−0·4	16 44	25·3	16 42	1040	908	01 02	132	3,3,3,2,2,4,2,2	21	1	83·1
23	22 15	380	336	11 27	44	14 08	25·9	15·3	00 52	10·6	14 13	1018	959	02 05	59	3,2,2,1,2,1,1,0	12	0	83·0
24 *d*	13 14	419	293	13 51	126	13 14	*45·1*	13·7	01 13	31·4	13 48	1070	953	07 40	117	1,3,3,3,4,3,1,1	19	1	83·0
25 *d*	20 20	449	331	11 48	118	13 10	27·0	−8·1	20 18	35·1	15 44	1062	915	23 33	147	1,2,2,2,3,4,5,3	22	1	83·5
26	16 31	385	325	03 00	60	03 20	25·1	18·0	16 35	7·1	16 32	1008	908	03 29	100	3,3,1,1,2,3,1,0	14	1	84·2
27 *q*	16 22	382	354	10 22	28	14 25	21·0	15·8	02 08	*5·2*	08 35	995	983	01 47	12	1,0,1,0,0,1,0,0	3	0	84·0
28 *q*	07 06	390	354	11 50	36	12 39	22·2	15·7	21 13	6·5	18 03	995	980	08 26	15	1,1,1,1,1,1,1,1	8	0	84·1
29 *q*	22 59	386	357	11 28	29	13 28	21·4	14·3	23 44	7·1	09 22	990	982	23 08	*8*	0,0,1,1,1,0,0,2	5	0	83·4
30 *q*	05 56	384	357	23 15	*27*	12 40	23·3	9·4	22 47	13·9	21 27	995	976	00 36	19	2,0,0,1,2,1,1,2	9	0	84·0
Mean	– –	402	325	– –	78	– –	26·9	4·9	– –	21·9	– –	1035	940	– –	95	–	–	0·67	83·8

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

54 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	368	374	377	380	381	380	378	375	372	364	361	357	360	364	372	375	381	366	364	364	362	368	371	371	370
2	368	375	375	379	380	380	380	375	375	368	364	357	357	360	354	355	368	371	372	368	369	368	371	369	369
3	360	353	353	368	366	379	381	376	374	360	348	347	348	351	357	361	368	375	376	377	372	372	372	372	365
4	373	374	372	371	376	383	382	374	372	364	360	361	364	367	371	372	378	383	389	390	386	384	383	383	375
5 *d*	383	382	378	375	382	386	382	377	373	378	368	363	359	370	379	389	372	375	382	386	385	371	368	377	377
6	379	374	373	369	366	375	373	373	368	364	361	364	367	372	375	378	382	382	385	382	378	371	365	364	373
7	371	374	371	385	390	393	386	378	372	364	363	362	364	368	371	377	357	356	365	372	375	379	379	372	373
8	375	372	369	364	383	382	379	379	375	364	358	358	368	368	371	375	382	386	386	386	381	381	379	379	375
9 *q*	382	375	378	378	375	378	379	377	378	374	368	370	373	377	375	377	379	380	386	387	383	379	381	381	378
10 *d*	378	374	375	378	376	382	386	384	382	371	364	363	364	369	375	363	371	383	386	386	378	375	386	379	376
11 *d*	375	375	377	380	382	382	382	384	381	372	364	364	363	360	364	368	368	375	382	382	343	358	347	372	371
12 *d*	364	376	367	364	366	371	375	375	376	370	365	343	329	354	368	371	370	364	368	371	369	372	373	383	367
13	368	370	372	372	375	378	376	375	365	372	365	358	357	363	361	365	372	375	378	379	379	377	378	377	371
14 *q*	376	375	375	375	375	375	375	371	368	365	364	363	362	364	371	374	379	381	383	384	385	383	382	378	374
15 *q*	378	379	377	377	379	380	380	379	375	368	361	355	360	365	373	378	383	386	386	386	386	385	382	382	377
16	382	379	379	379	379	380	382	378	375	372	370	370	372	375	379	386	386	389	390	390	389	383	386	375	*380*
17	374	375	375	375	378	393	393	382	370	358	354	350	347	355	366	375	380	382	382	379	368	368	382	374	372
18	376	375	372	379	384	382	379	379	381	375	372	371	375	378	378	381	386	390	390	389	385	383	382	382	*380*
19 *d*	382	379	388	387	386	390	398	365	337	332	353	354	340	343	382	394	457	398	361	350	356	358	357	357	371
20 *q*	357	358	363	356	355	354	358	357	350	346	346	346	346	349	353	358	365	370	370	370	370	368	370	368	*358*
21	367	368	371	372	372	378	375	374	364	318	348	358	360	364	358	372	375	377	375	375	375	375	382	370	368
22	362	372	364	368	370	372	374	372	364	355	355	355	346	350	358	371	374	376	375	371	372	374	378	376	367
23	375	372	374	374	374	381	382	381	382	370	365	357	354	356	365	376	377	379	378	375	374	372	375	365	372
24	359	346	352	359	359	371	370	370	370	367	366	362	361	362	361	366	370	373	377	378	379	376	374	372	367
25	370	368	375	372	372	373	374	374	373	369	364	364	360	363	367	372	377	379	382	387	384	388	374	377	373
26	378	374	368	369	375	375	375	369	362	363	368	355	339	352	365	378	373	367	363	364	359	354	354	354	365
27	355	355	358	356	363	370	362	372	359	351	352	352	354	358	362	364	364	368	366	367	359	359	341	343	359
28	351	333	366	361	367	367	374	374	365	363	360	358	359	351	353	360	365	367	367	370	370	369	370	369	363
29	370	369	366	371	377	381	379	371	363	362	360	355	355	349	354	364	366	371	370	371	373	371	369	374	367
30 *q*	370	373	371	372	373	374	371	372	369	364	362	360	360	365	370	370	375	375	378	378	378	377	378	379	371
31	378	378	383	381	381	383	385	381	378	373	370	367	366	367	365	365	371	372	375	377	374	375	377	380	375
Mean	371	370	371	372	375	*378*	*378*	375	370	363	361	359	*358*	362	367	372	377	377	377	377	374	373	373	373	371

374 at 0-1h. January 1, 1947.

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, +1γ.

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

55 LERWICK (D) — 11° + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	14·5	13·7	14·6	15·5	15·6	16·1	16·1	15·9	15·5	15·7	16·8	18·0	19·4	20·2	20·4	19·7	19·3	19·1	19·5	16·6	16·6	15·4	13·8	7·0	16·5
2	11·4	15·6	17·0	18·0	17·9	18·4	18·2	16·7	16·3	15·7	17·7	18·7	20·4	22·3	22·8	22·3	20·4	18·6	19·5	15·7	17·0	14·5	11·8	2·8	17·1
3	2·3	7·1	18·2	14·6	18·1	20·5	17·2	17·1	16·5	16·5	17·9	20·8	20·5	20·8	19·6	22·5	17·2	17·7	17·7	17·7	16·0	15·6	16·5	16·6	16·9
4	16·5	17·0	17·4	17·4	17·1	15·8	16·6	18·1	17·7	16·7	17·6	19·6	20·8	20·4	19·6	19·4	18·9	18·6	18·6	18·5	18·0	17·2	17·6	17·6	18·0
5 *d*	18·1	17·1	16·6	17·0	17·1	16·7	15·9	16·3	17·2	17·2	18·8	21·5	22·9	22·4	23·4	25·6	23·4	26·0	19·1	18·6	18·1	15·8	13·2	15·3	18·9
6	17·7	15·7	15·3	14·7	12·5	14·3	14·6	15·5	15·6	15·9	18·1	19·2	20·9	22·4	21·5	19·6	19·4	18·6	18·5	18·0	16·9	14·8	10·5	14·9	16·9
7	15·8	16·8	11·8	10·7	14·3	13·1	17·7	16·5	13·9	15·8	17·2	19·4	21·1	21·0	20·4	21·1	19·6	18·1	21·0	19·1	17·0	15·7	11·5	13·4	16·7
8	14·2	14·8	17·6	20·0	21·9	16·6	16·5	16·2	16·1	17·6	17·7	18·6	19·6	21·4	21·0	19·9	19·6	19·6	18·9	19·1	18·3	16·2	15·8	15·3	18·0
9 *q*	13·4	14·6	15·5	16·2	17·6	16·7	16·3	15·8	15·4	15·8	17·7	19·6	20·1	20·4	20·0	20·0	20·5	20·9	19·6	19·1	15·8	17·6	15·9	14·9	17·5
10 *d*	12·8	12·9	16·1	17·5	17·7	17·0	16·8	16·7	16·6	16·7	17·6	20·9	20·2	22·2	21·4	14·3	21·3	21·3	18·9	18·8	17·1	10·9	3·4	11·7	16·7
11 *d*	15·8	16·7	17·6	17·6	17·5	16·7	16·8	16·7	16·2	15·8	16·2	18·6	18·7	20·2	21·4	22·5	23·4	17·1	18·7	4·4	10·5	9·9	10·0	13·8	16·4
12 *d*	12·3	15·8	13·0	15·7	17·3	16·7	16·6	16·2	15·8	15·7	18·2	20·1	22·9	22·8	22·5	16·8	15·8	18·6	18·6	13·7	16·8	16·2	13·0	9·2	16·7
13	12·5	16·7	16·6	16·8	16·9	15·9	17·3	16·8	17·3	17·7	17·8	20·5	20·5	22·1	20·7	20·4	20·6	19·7	17·6	17·0	15·9	16·7	15·9	16·3	17·8
14 *q*	16·1	16·2	16·2	16·1	16·5	16·6	16·7	15·9	15·9	16·6	17·7	18·7	19·7	20·4	20·6	20·0	19·1	18·6	18·1	17·8	17·7	17·3	16·8	16·6	17·6
15 *q*	15·9	15·9	16·1	16·2	16·6	16·7	16·6	16·3	15·9	16·7	17·7	20·1	21·6	22·3	21·7	20·6	19·7	19·7	19·4	18·8	18·7	18·5	18·7	17·6	18·3
16	16·8	16·6	14·9	15·9	16·1	16·8	16·3	16·9	17·6	18·2	18·8	20·7	21·9	20·6	20·8	21·1	20·5	19·7	19·7	19·7	20·4	18·6	13·1	9·3	18·0
17	12·2	14·1	14·4	14·4	14·6	14·8	16·9	16·8	16·3	17·7	18·7	21·5	21·5	22·5	21·6	19·7	18·7	18·2	18·6	18·7	16·7	15·0	12·0	15·0	17·1
18	15·0	14·0	17·8	15·3	11·6	14·0	15·1	16·7	15·9	15·9	17·3	19·7	21·6	24·5	22·6	21·5	19·7	19·2	18·7	18·4	17·3	16·9	17·3	17·4	17·6
19 *d*	17·3	18·5	20·7	18·4	16·9	19·6	21·6	24·9	23·7	24·3	26·2	26·3	26·7	27·7	29·2	30·0	25·2	13·4	14·7	13·8	14·4	15·0	15·9	16·0	*20·9*
20 *q*	16·3	16·7	18·2	21·6	18·2	15·7	14·4	13·4	13·4	12·7	13·5	14·0	15·9	16·7	16·8	16·4	16·3	16·8	17·3	17·4	17·8	18·2	17·8	18·2	16·4
21	18·2	17·8	17·7	17·7	17·6	16·6	15·7	15·6	16·8	17·3	24·0	20·6	23·5	22·6	22·7	21·5	20·1	17·8	16·9	16·7	16·4	15·9	14·0	14·1	18·2
22	13·1	11·8	10·6	14·7	15·0	15·7	22·5	18·7	17·1	15·9	18·4	20·7	21·6	22·7	20·5	19·1	16·7	15·0	18·7	17·7	16·7	16·4	15·7	15·9	17·1
23	16·8	16·9	17·1	16·8	16·7	16·9	16·1	15·7	15·4	15·0	16·8	20·1	20·8	21·6	22·5	22·0	21·6	19·7	19·9	18·3	17·3	15·4	14·8	13·5	17·8
24	12·2	8·3	12·0	12·4	12·2	13·5	15·2	14·8	14·8	15·9	17·7	18·7	19·8	21·6	20·9	18·7	17·7	17·7	17·4	17·0	16·8	16·7	16·7	16·7	16·1
25	16·7	15·0	12·7	12·8	14·7	15·2	15·1	15·1	15·2	15·0	16·3	17·3	18·8	20·6	21·0	19·1	18·7	19·0	18·7	20·5	17·7	19·1	13·5	12·8	16·7
26	16·7	15·9	18·5	19·8	18·4	17·8	17·6	17·8	19·1	19·7	17·8	19·7	21·6	21·6	22·9	24·7	26·0	21·8	21·6	17·5	15·9	13·7	13·6	12·4	18·8
27	12·2	13·9	11·3	8·2	13·7	17·5	22·5	18·5	18·2	17·7	17·7	19·5	19·7	19·5	19·7	19·0	18·3	18·5	15·1	9·1	13·9	11·5	9·1	14·9	*15·8*
28	11·6	17·0	12·2	13·0	14·0	14·8	15·8	16·2	15·2	16·3	17·3	18·9	19·2	20·1	21·9	19·9	19·1	18·3	18·9	17·7	16·4	14·8	14·2	15·5	16·6
29	15·9	15·8	17·1	18·6	17·0	15·5	16·1	16·8	15·9	15·9	16·8	19·1	20·6	22·0	21·6	19·4	15·1	17·9	17·4	17·7	16·3	14·4	15·5	15·3	17·2
30 *q*	16·0	16·7	16·8	16·9	17·3	16·8	16·3	16·0	15·9	16·3	16·8	17·0	18·9	20·3	19·7	18·4	17·7	18·2	17·8	17·6	17·3	17·0	16·7	16·3	17·3
31	16·8	18·3	16·8	15·2	16·2	16·3	16·1	16·1	15·9	16·4	17·2	18·8	19·7	21·3	22·0	20·1	19·7	18·4	17·8	17·7	16·8	13·7	15·9	16·1	17·5
Mean	14·6	15·3	15·7	16·0	16·3	16·3	16·9	16·7	16·4	16·7	17·9	19·6	20·7	*21·5*	21·4	20·5	19·7	18·8	18·5	17·1	16·7	15·6	*14·2*	14·3	17·4

17·5 at 0-1h. January 1, 1947.

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

56 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	988	984	983	980	980	981	983	988	989	990	990	988	983	983	983	988	989	1003	1020	1030	1020	1003	988	971	991
2	968	971	972	972	977	978	980	983	988	990	989	988	987	988	995	999	998	998	1001	1007	1001	1001	983	963	987
3	958	947	897	909	941	947	964	977	983	990	997	1000	1001	999	1001	999	995	990	989	990	994	993	990	989	977
4	988	983	983	982	976	976	977	982	983	988	989	989	990	989	989	989	984	983	983	982	984	989	989	988	985
5 *d*	988	985	985	983	980	978	980	981	982	977	983	987	989	985	988	990	1013	1019	1007	997	1006	1024	1025	1010	993
6	996	995	990	984	977	978	983	985	989	990	991	992	990	988	989	989	985	985	983	985	992	1001	1003	1000	989
7	995	995	983	945	928	927	940	952	969	975	977	979	979	980	983	987	1002	1009	1001	996	989	983	983	985	977
8	979	982	976	957	924	952	964	971	974	976	977	976	976	976	982	983	982	980	977	978	982	983	983	986	*974*
9 *q*	983	984	983	983	983	982	972	981	977	976	976	977	980	982	988	990	990	990	987	984	992	989	988	984	983
10 *d*	983	986	984	984	988	985	982	979	978	977	977	978	979	981	990	1009	1001	992	988	989	995	1001	982	968	986
11 *d*	976	977	980	982	983	982	982	979	977	976	977	977	980	983	993	995	1003	1009	1002	995	1002	934	936	969	981
12 *d*	976	953	963	979	985	988	988	987	985	984	983	989	995	997	1012	1034	1026	1020	1013	1014	1010	1003	999	983	994
13	982	982	985	988	988	988	988	987	989	988	988	984	978	982	989	994	990	995	995	994	993	990	986	983	988
14 *q*	982	982	982	982	983	983	983	984	985	983	983	983	978	977	978	981	982	982	983	983	983	983	983	983	982
15 *q*	982	982	981	980	978	978	979	982	983	983	985	985	982	976	977	981	981	982	983	983	986	987	988	987	982
16	983	982	979	977	977	977	977	978	977	977	978	978	976	976	978	977	978	977	978	982	987	999	1004	1001	981
17	994	987	983	982	981	972	971	974	982	986	991	995	994	999	998	995	995	990	990	995	1002	1001	982	982	988
18	982	979	971	952	964	971	974	978	983	983	982	977	976	977	982	982	980	979	979	982	983	985	987	985	978
19 *d*	984	983	974	970	974	970	959	961	971	971	969	983	1007	1033	1028	1046	1110	1037	1034	1036	1014	1001	996	996	1000
20 *q*	996	996	994	990	986	989	990	995	998	998	1000	1003	1003	998	1000	1000	995	993	989	989	989	988	988	989	994
21	991	990	990	990	988	983	983	982	983	998	980	988	996	1001	1005	1005	1002	1001	998	996	993	993	987	983	992
22	991	995	989	988	989	984	968	975	986	996	995	996	1001	1007	1002	1000	1004	1003	995	998	996	993	989	989	993
23	989	989	989	990	990	984	983	983	982	983	989	990	993	990	991	996	999	1002	1001	1001	1001	997	983	978	991
24	985	988	983	990	989	985	988	993	988	989	988	985	984	983	992	994	985	988	989	988	988	988	988	987	988
25	987	989	986	987	983	983	983	982	980	979	977	976	976	977	983	988	988	988	988	988	1001	1014	1040	1023	989
26	1007	999	990	976	966	971	977	982	981	972	971	979	989	996	1014	1044	1052	1047	1058	1063	1040	1026	1010	997	*1004*
27	991	982	958	952	957	964	964	964	977	985	988	989	990	988	990	995	995	996	1007	1009	1006	996	995	958	983
28	955	919	941	961	976	983	983	985	990	990	990	991	991	995	999	1001	1006	1006	1002	1001	997	994	993	988	985
29	980	971	973	970	976	979	983	987	990	991	990	988	987	984	987	993	1001	995	996	996	992	990	988	977	986
30 *q*	977	977	982	983	983	983	987	988	990	989	988	983	983	979	982	984	988	989	989	989	988	989	987	983	985
31	979	975	964	965	967	971	973	977	981	983	980	976	975	976	983	985	986	988	988	989	993	995	987	983	980
Mean	984	980	977	*975*	975	976	977	980	983	984	984	985	987	988	992	997	*1000*	997	997	997	997	994	991	985	987

981 at 0-1h. January 1, 1947.

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, +1γ.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

57 LERWICK — DECEMBER

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force										
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1	16 15	386	354	20 05	32	14 55	21·4	0·4	23 43	21·0	19 39	1035	958	23 40	77	1,1,0,0,1,2,2,3	10	0	84·1
2	23 21	384	346	15 04	38	13 08	23·3	−0·8	23 28	24·1	19 21	1014	953	24 00	61	3,1,1.1.2.2,2,3	15	1	83·8
3	05 59	390	327	02 08	63	02 18	25·4	0·2	00 09	25·2	11 00	1002	*860*	02 39	142	4,3,1,2,2,1,1,1	15	1	83·9
4	20 31	393	357	10 16	36	12 19	22·2	14·8	06 05	7·4	20 49	993	971	04 40	22	1,2,2,1,1,1,2,1	11	0	83·1
5 *d*	15 52	397	354	12 44	43	17 26	30 0	10·4	22 27	19·6	16 56	1032	976	09 30	56	1,1,2,2,2,3,2,2	15	1	82·5
6	18 49	389	350	23 18	39	13 55	24·7	8·6	22 24	16·1	23 18	1011	971	04 45	40	2,2,1,1,2,1,2,3	14	1	82·2
7	04 49	401	350	02 49	51	16 07	22·7	7·5	03 45	15·2	17 27	1017	915	04 50	102	2,3,2,1,1,2,2,2	15	1	82·2
8	04 29	393	350	11 20	43	04 06	28·2	11·9	00 39	16·3	23 35	988	909	04 26	79	2,3,2,2,1,1,2,1	14	1	81·0
9 *q*	20 45	400	367	10 39	33	13 38	21·5	10·7	20 38	10·8	20 24	998	974	09 50	24	1,1,1,1,1,1,3,1	10	0	81·8
10 *d*	22 55	402	350	11 55	52	11 30	23·6	−0·2	22 52	23·8	15 54	1015	962	23 08	53	2,1,1,2,2,3,2,3	16	1	82·0
11 *d*	19 11	415	334	20 25	81	16 27	25·3	−7·1	19 27	32·4	19 08	1027	912	21 21	115	2,1,1,1,2,3,4,4	18	1	82·8
12 *d*	23 32	411	315	12 11	96	14 07	27·0	1·5	23 30	25·5	15 40	1053	939	01 45	114	3,2,1,3,3,4,3,3	22	1	82·6
13	19 03	383	352	12 24	31	13 30	23·5	10·7	00 05	12·8	17 46	997	977	12 39	20	2,2,2,2,2,2,2,1	15	0	82·6
14 *q*	21 18	386	360	13 10	26	14 11	21·4	15·4	07 55	6·0	07 55	986	977	13 30	*9*	0,0,1,1,1,1,0,0	4	0	82·1
15 *q*	17 02	388	353	11 51	35	14 02	22·5	15·5	00 33	7·0	10 40	988	976	13 45	12	1,0,0,1,1,1,0,1	5	0	82·3
16	20 16	397	364	24 00	33	20 30	23·5	6·3	22 58	17·2	22 42	1010	975	13 18	35	1,0,1,1,1,1,2,3	10	0	82·0
17	22 06	404	343	12 18	61	13 55	24·4	6·3	22 04	18·1	20 40	1006	969	06 40	37	2,2,2,1,2,1,2,3	15	0	82·1
18	18 32	394	363	02 39	31	13 32	26·3	10·3	04 25	16·0	20 18	987	946	03 20	41	3,2,1,1,2,1,1,1	12	0	82·3
19 *d*	16 59	*657*	313	17 30	*344*	17 28	*35·8*	3·1	17 10	*32·7*	16 58	*1193*	956	07 07	*237*	2,2,3,3,3,6,4,1	24	1	83·0
20 *q*	21 11	372	343	11 05	29	03 40	22·9	12·0	09 54	10·9	11 55	1005	983	04 25	22	2,2,1,1,1,1,0,0	8	0	83·2
21	22 28	397	*303*	09 34	94	12 16	27·3	9·8	22 43	17·5	15 03	1007	971	10 36	36	1,1,2,3,2,2,1,2	14	1	83·0
22	06 55	388	344	12 50	44	06 15	25·4	7·3	01 36	18·1	17 01	1014	959	06 45	55	3,2,3,2,2,2,1,1	16	1	83·0
23	17 37	381	344	13 05	37	16 10	23·5	12·0	23 34	11·5	17 35	1006	971	22 58	35	0,1,1,2,1,2,2,2	11	1	83·2
24	19 58	381	343	01 56	38	14 19	22·5	6·7	01 24	15·8	03 50	996	982	03 15	14	2,2,1,1,1,1,0,1	9	0	83·0
25	22 11	422	343	22 26	79	19 45	23·1	4·4	22 36	18·7	22 33	1059	976	12 05	83	2,2,0,0,2,1,3,4	14	1	82·1
26	15 13	390	332	12 11	58	16 29	28·0	11·3	23 48	16·7	19 13	1070	963	04 11	107	2,2,2,2,3,2,3,2	18	1	82·1
27	05 46	382	304	23 10	78	06 49	24·2	−1·1	18 55	25·3	18 53	1030	936	23 31	94	3,3,2,1,2,1,4,3	19	1	82·2
28	06 58	381	324	01 17	57	14 24	23·1	8·9	00 30	14·2	18 00	1007	891	01 33	116	3,3,1,1,2,1,1,1	13	1	82·0
29	06 00	384	347	13 32	37	13 47	23·4	13·5	16 19	9·9	16 24	1003	965	03 49	38	1,2,2,1,2,2,1,2	13	0	82·1
30 *q*	18 41	381	360	11 39	*21*	13 50	20·6	15·2	00 00	*5·4*	08 30	991	977	01 10	14	1,0,0,1,1,0,0,0	3	0	82·2
31	06 00	390	361	15 08	29	14 48	22·4	8·8	21 28	13·6	21 35	997	958	02 32	39	2,1,1,1,1,1,1,3	11	0	82·5
Mean	− −	401	344	− −	57	− −	24·5	7·6	− −	16·9	− −	1017	955	− −	62	−	−	0·55	82·5

q denotes an international quiet day and *d* an international disturbed day.

DIURNAL INEQUALITIES OF THE TERRESTRIAL MAGNETIC ELEMENTS

ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

58 LERWICK

HORIZONTAL FORCE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	-10·9	-8·4	-11·0	-1·0	+5·1	+6·7	+11·2	+9·4	+6·1	+2·2	+0·2	-3·9	-1·5	-0·4	+2·4	+14·2	*+14·6*	+10·4	+5·0	-4·2	-11·7	*-17·6*	-6·1	-10·8
Feb.	-22·9	*-26·5*	-23·6	-16·6	-13·1	-6·5	0·0	+0·1	-3·3	-9·9	-8·9	-2·6	-0·4	+4·2	+20·1	+21·4	*+26·8*	+25·4	+25·4	+22·6	+21·3	-0·5	-13·0	-19·5
Mar.	-33·3	*-48·7*	-38·3	-31·0	-19·9	+2·6	+3·2	-1·1	-11·6	-13·4	-14·2	-2·9	-9·6	+10·3	+33·9	*+64·7*	+55·0	+34·9	+29·3	+28·9	+15·1	-4·0	-21·1	-28·8
Apr.	-31·9	-17·8	-19·8	-7·9	-6·9	-0·1	+1·5	-10·4	-19·8	-30·8	*-33·0*	-29·4	-15·9	+8·2	+23·1	*+50·7*	+47·4	+37·3	+35·9	+26·8	+12·5	+5·7	-3·9	-21·5
May	-2·8	-10·7	-13·6	-6·9	-9·0	-12·9	-26·6	-27·4	-29·8	-32·4	*-35·5*	-29·0	-19·5	-10·2	+8·2	+42·2	+43·3	*+44·2*	+43·8	+43·0	+27·7	+14·6	-0·5	-0·2
June	-22·8	-18·2	-17·0	-4·0	-3·4	-7·3	-10·6	-21·9	-28·3	-34·5	*-38·1*	-32·9	-24·5	-10·9	+11·9	+30·4	*+57·3*	+53·8	+45·8	+40·9	+26·7	+12·1	+3·6	-8·1
July	-20·2	-19·7	-19·6	-20·4	-18·2	-23·3	-30·5	-21·3	-25·0	-30·4	*-34·4*	-28·4	-19·4	+2·9	+17·3	+34·9	+49·8	*+51·8*	+49·1	+43·3	+33·6	+22·2	+11·8	-5·9
Aug.	-2·6	-0·2	-3·0	-0·2	-1·7	-7·0	-6·0	-14·0	-25·5	-37·7	*-39·0*	-37·0	-24·4	-6·0	+6·5	+19·1	+30·5	*+34·3*	+31·6	+31·6	+24·5	+13·3	+6·4	+6·5
Sept.	-33·5	-44·6	*-48·8*	-44·9	-35·7	-33·3	-42·7	-27·0	-22·3	-23·1	-25·4	-9·0	+10·4	+51·7	+60·4	+65·3	*+80·9*	+73·9	+55·3	+12·5	+13·4	-5·8	-10·0	-17·7
Oct.	-5·2	-2·9	-1·2	+3·0	+9·9	+9·5	+10·1	+6·4	-6·3	-19·3	-24·3	*-24·5*	-18·0	-7·1	+1·9	+6·1	+9·4	+10·8	*+13·7*	+12·1	+10·5	+9·6	+0·7	-4·9
Nov.	-1·0	-2·2	-2·3	-3·3	+3·6	+7·0	+7·7	+4·3	-1·6	-12·2	-15·9	*-17·1*	-11·8	-7·7	-4·0	+0·7	+8·2	+9·3	+8·3	+8·9	*+9·8*	+4·2	+4·4	+2·7
Dec.	+0·2	-0·8	+0·5	+1·5	+3·8	*+7·3*	+7·3	+3·9	-1·0	-7·9	-9·6	-12·3	*-13·2*	-9·4	-4·0	+0·9	+5·6	+5·5	+6·1	+6·1	+3·2	+2·3	+2·2	+1·8
Year	-15·6	-16·7	-16·5	-11·0	-7·1	-4·8	-6·3	-8·3	-14·0	-20·8	*-23·2*	-19·1	-12·3	+2·1	+14·8	+29·2	*+35·7*	+32·6	+29·1	+22·7	+15·5	+4·7	-2·1	-8·9
Winter	-8·7	*-9·5*	-9·1	-4·9	-0·1	+3·6	+6·5	+4·4	+0·1	-6·9	-8·5	-9·0	-6·7	-3·3	+3·6	+9·3	*+13·8*	+12·7	+11·2	+8·3	+5·7	-2·9	-3·1	-6·5
Equinox	-26·0	*-28·5*	-27·0	-20·2	-13·1	-5·3	7·0	-8·0	-15·0	-21·7	-24·2	-16·5	-8·3	+15·8	+29·8	+46·7	*+48·2*	+39·2	+33·5	+20·1	+12·9	+1·4	-8·6	-18·2
Summer	-12·1	-12·2	-13·3	-7·9	-8·1	-12·6	-18·4	-21·1	-27·1	-33·7	*-36·7*	-31·8	-21·9	-6·1	+11·0	+31·7	+45·2	*+46·0*	+42·6	+39·7	+28·1	+15·5	+5·3	-1·9

DECLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-2·08	-1·23	-1·16	-1·41	-1·25	-0·21	+0·05	+0·53	+0·46	+0·94	+1·53	+2·40	*+3·86*	+3·75	+3·30	+2·39	+0·88	+1·28	-0·11	-1·37	-1·97	*-3·68*	-3·63	-3·27
Feb.	-3·21	-1·93	-1·78	-1·64	-2·33	-0·22	+0·11	-0·44	-1·56	-1·18	-0·67	+0·98	+3·41	*+4·22*	+3·46	+2·76	+2·29	+1·91	+1·92	+1·06	-0·16	*-3·47*	-0·76	-2·77
Mar.	-4·64	-4·84	-4·54	*-5·30*	-3·81	-1·94	-2·15	-2·63	-2·79	-0·28	+1·36	+3·55	+4·84	+6·08	+6·78	*+7·16*	+5·20	+4·41	+1·51	-0·34	-0·82	-1·68	-1·00	-4·13
Apr.	-3·15	-3·43	-3·48	*-5·65*	-4·32	-3·31	-3·90	-4·25	-3·88	-2·15	+0·99	+4·43	+6·47	*+7·81*	+6·71	+6·39	+4·89	+3·37	+2·61	+1·42	+0·06	-1·00	-2·99	-3·64
May	-1·68	-2·74	-2·70	-4·08	-5·06	*-5·24*	-4·45	-5·14	-5·18	-2·33	+0·60	+4·55	+6·70	*+7·13*	+6·68	+5·43	+3·91	+2·84	+1·94	+1·36	+0·63	-0·09	-1·44	-1·64
June	-2·25	-2·31	-2·95	-4·41	-4·54	-5·45	*-6·92*	-6·54	-4·97	-3·20	-0·89	+2·55	+5·75	+6·98	*+7·33*	+6·09	+5·43	+3·80	+3·24	+2·43	+1·85	+0·73	-0·44	-1·31
July	-1·99	-3·90	-3·94	-5·42	-5·40	*-7·06*	-5·38	-6·96	-5·00	-3·49	-0·52	+2·95	+6·13	*+6·69*	+6·42	+5·82	+4·18	+3·13	+2·73	+3·10	+3·78	+2·60	+1·42	+0·11
Aug.	-0·82	-2·17	-3·15	-3·00	-3·62	-5·35	-5·75	*-6·31*	-5·78	-3·46	-0·02	+4·03	+7·39	*+8·19*	+7·20	+4·92	+3·70	+1·81	+0·96	+0·98	+0·54	+0·88	-0·04	-1·13
Sept.	-3·12	-3·88	*-5·22*	-3·68	-3·88	-2·53	-3·78	-4·15	-3·85	-1·51	+0·78	+2·28	+6·03	+5·69	+7·58	*+7·63*	+5·91	+3·61	+2·96	-0·18	+0·46	-1·22	-2·91	-3·02
Oct.	-2·70	-1·99	*-3·53*	-2·74	-2·52	-1·38	-1·53	-2·13	-2·77	-1·68	+0·91	+3·97	+6·05	*+6·66*	+5·99	+4·19	+2·45	+1·71	+0·98	-0·36	-1·78	-2·76	-2·10	-2·94
Nov.	-3·42	-2·43	-1·93	-1·81	-1·23	-1·36	-0·93	-0·45	-1·05	-0·70	+0·40	+2·58	+4·13	*+5·04*	+4·46	+3·25	+2·46	+2·44	+1·40	-0·07	-0·91	-2·67	*-3·83*	-3·37
Dec.	-2·77	-2·09	-1·64	-1·39	-1·10	-1·09	-0·50	-0·71	-0·99	-0·73	+0·55	+2·20	+3·29	*+4·14*	+4·01	+3·11	+2·27	+1·38	+1·10	-0·33	-0·66	-1·75	*-3·19*	-3·11
Year	-2·65	-2·75	-3·00	*-3·38*	-3·25	-2·93	-2·93	-3·27	-3·11	-1·65	+0·42	+3·04	+5·34	*+6·03*	+5·83	+4·93	+3·63	+2·64	+1·77	+0·64	+0·09	-1·18	-1·74	-2·52
Winter	-2·87	-1·92	-1·63	-1·56	-1·48	-0·72	-0·32	-0·27	-0·79	-0·42	+0·45	+2·04	+3·67	*+4·29*	+3·81	+2·88	+1·97	+1·75	+1·08	-0·18	-0·93	-2·89	-2·85	*-3·13*
Equinox	-3·40	-3·54	-4·19	*-4·34*	-3·63	-2·29	-2·84	-3·29	-3·32	-1·40	+1·01	+3·56	+5·85	+6·56	*+6·77*	+6·34	+4·61	+3·27	+2·01	+0·13	-0·52	-1·67	-2·25	-3·43
Summer	-1·69	-2·78	-3·19	-4·23	-4·65	-5·77	-5·63	*-6·24*	-5·23	-3·12	-0·21	+3·52	+6·49	*+7·25*	+6·91	+5·57	+4·31	+2·89	+2·22	+1·97	+1·70	+1·03	-0·13	-0·99

VERTICAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	-16·7	-14·9	-14·5	*-17·0*	-14·5	-10·8	-10·4	-6·7	-3·8	-1·9	+0·7	+4·6	+7·9	+9·6	+12·3	+17·7	*+18·6*	+16·5	+17·8	+15·7	+9·4	+1·7	-9·5	-11·8
Feb.	-5·7	-16·3	-24·3	-23·1	*-34·2*	-22·8	-14·5	-6·4	-0·9	+2·1	+6·9	+12·6	+12·9	+15·3	+24·0	+26·2	*+26·8*	+23·0	+18·0	+20·3	+9·2	-3·9	-18·8	-26·4
Mar.	*-48·4*	-28·4	-43·3	-25·8	-27·4	-16·4	-1·3	+7·0	+12·7	+11·2	+18·5	+18·9	+13·5	+15·0	+7·1	-5·8	+21·4	+30·3	*+33·3*	+27·2	+20·4	+10·9	-16·5	-34·1
Apr.	-16·3	*-32·0*	-21·7	-23·0	-13·7	-11·0	-11·8	-9·7	-8·0	-5·2	-1·3	+2·3	+7·6	+14·9	*+23·6*	+23·0	+22·5	+23·4	+21·7	+16·1	+9·0	-1·6	-5·0	-3·8
May	-18·7	-28·4	-30·3	-29·5	*-33·4*	-22·2	-21·3	-16·3	-7·5	-2·9	0·0	+1·8	+8·7	+17·4	+22·4	+29·3	+34·6	*+34·8*	+30·1	+24·6	+19·7	+12·3	-7·4	-17·8
June	-19·9	*-29·4*	-27·9	-19·5	-14·2	-10·9	-4·4	-1·5	-0·5	-2·0	-2·3	-3·9	-0·4	+5·4	+16·1	+23·3	+29·9	*+32·5*	+22·9	+18·2	+11·1	+3·7	-11·1	-15·2
July	-13·2	-16·1	-8·2	-2·9	-14·7	*-18·9*	-10·2	-13·5	-7·3	-7·5	-4·1	-3·9	-4·0	+0·9	+8·8	+16·0	+26·7	*+28·4*	+25·9	+19·0	+16·4	+6·3	-9·6	-14·3
Aug.	-17·2	*-18·6*	-18·5	-14·6	-9·6	-7·8	-5·1	+2·5	+3·6	+2·1	-1·3	-5·7	-7·2	-2·0	+7·1	+16·7	+18·3	*+23·7*	+22·0	+16·9	+13·1	+1·0	-9·9	-9·5
Sept.	-32·3	-49·7	*-60·0*	-32·9	-40·5	-32·4	-17·7	-8·9	+1·9	+8·6	+11·7	+22·2	+29·3	+30·5	+35·4	+29·7	+35·5	*+36·3*	+36·2	+21·4	+19·1	+3·5	-16·6	-30·3
Oct.	-21·7	-20·4	-18·7	-15·8	-13·3	-10·8	-12·1	-7 2	-1·2	+3·2	+3·2	+3·0	+5·8	+11·8	+18·7	*+23·6*	+23·0	+22·3	+20·7	+17·0	+10·0	+0·3	-12·7	*-28·7*
Nov.	-11·6	-10·7	-14·6	*-18·2*	-14·0	-11·5	-8·1	-6·3	-2·5	-0·2	+0·7	+2·8	+4·6	+7·7	+11·8	+14·2	*+14·4*	+13·7	+11·7	+11·5	+9·4	+4·2	-1·8	-7·2
Dec.	-3·0	-6·3	-10·2	*-12·1*	-12·0	-10·7	-9·7	-6·6	-3·8	-2·3	-2·2	-1·2	0·0	+1·3	+5·3	+9·8	*+12·8*	+10·7	+9·8	+10·4	+10·0	+7·4	+3·9	-1·3
Year	-18·7	-22·6	*-24·3*	-19·5	-20·1	-15·5	-10·5	-6·1	-1·4	+0·4	+2·5	+4·5	+6·6	+10·6	+16·1	+18·6	+23·7	*+24·6*	+22·5	+18·2	+13·1	+3·8	-9·6	-16·7
Winter	-9·3	-12·1	-15·9	-17·6	*-18·7*	-13·9	-10·7	-6·5	-2·7	-0·6	+1·5	+4·7	+6·3	+8·5	+13·3	+17·0	*+18·1*	+16·0	+14·3	+14·5	+9·5	+2·3	-6·5	-11·7
Equinox	-29·7	-32·6	*-35·9*	-24·4	-23·7	-17·7	-10·7	-4·7	+1·3	+4·5	+8·0	+11·6	+14·1	+18·1	+21·2	+17·6	+25·6	*+28·1*	+28·0	+20·4	+14·6	+3·3	-12·7	-24·2
Summer	-17·3	*-23·1*	-21·2	-16·6	-18·0	-14·9	-10·3	-7·2	-2·9	-2·6	-1·9	-2·9	-0·7	+5·4	+13·6	+21·3	+27·4	*+29·9*	+25·2	+19·7	+15·1	+5·8	-9·5	-14·2

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

DIURNAL INEQUALITIES OF THE TERRESTRIAL MAGNETIC ELEMENTS

INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

59 LERWICK

HORIZONTAL FORCE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−2·7	−2·6	−2·7	−0·4	+1·2	+3·3	+3·2	+1·6	−0·1	−2·4	−3·9	*−5·6*	−4·1	+0·2	+2·1	+2·0	+3·2	*+4·3*	+3·6	+0·6	−0·5	+0·2	+0·1	−0·6
Feb.	+3·6	+1·0	−1·0	+0·8	+2·8	+5·5	+7·4	+5·8	+2·2	−8·2	−14·2	*−18·0*	−15·8	−14·2	−7·6	−0·8	+2·4	+4·3	+4·6	+7·2	+8·0	*+9·6*	+8·0	+6·6
Mar.	+3·6	+4·7	+4·2	+3·5	+2·3	+3·0	+1·9	+1·1	−7·2	−15·7	*−20·6*	−20·1	−17·8	−9·7	−5·0	+0·3	+3·9	+6·2	+9·7	+10·1	+10·0	+11·1	*+11·2*	+9·3
Apr.	+7·5	+6·0	+5·3	+6·0	+6·5	+6·6	+3·3	−3·6	−14·5	−28·4	*−34·5*	−33·8	−28·3	−20·6	−13·3	+3·0	+11·5	*+22·0*	+21·1	+19·4	+15·1	+14·6	+14·1	+15·0
May	+3·4	+4·5	+3·2	+4·3	+3·6	−0·9	−7·4	−15·3	−24·0	−34·5	*−39·6*	−33·5	−20·2	−10·1	+3·6	+13·7	+17·6	+22·3	+24·8	*+27·5*	+25·2	+17·9	+8·0	+5·9
June	+0·7	+3·8	+0·7	+3·8	+3·4	+3·1	−4·4	−16·2	−20·1	−26·0	*−35·3*	−34·6	−26·7	−19·6	−6·1	+6·8	+14·0	+26·9	*+32·4*	+27·2	+24·7	+17·0	+13·5	+11·0
July	+0·9	−0·4	+1·1	+4·0	+3·4	−0·1	−9·0	−18·8	−27·7	−34·6	−38·5	*−36·0*	−22·9	−5·4	+10·1	+21·6	+20·8	+17·9	+24·2	+26·6	*+23·5*	+19·4	+13·7	+6·2
Aug.	+11·6	+10·3	+8·8	+7·7	+7·5	+4·6	−2·3	−11·1	−23·8	−38·7	*−41·6*	−35·7	−25·0	−9·9	+0·4	+8·7	+12·9	+13·8	+13·9	+18·1	*+18·8*	+17·5	+16·6	+16·9
Sept.	+8·4	+3·9	+4·4	+2·2	+3·0	+8·5	+6·0	−1·8	−12·2	−24·9	−35·0	*−36·4*	−29·6	−18·1	−8·8	+1·6	+2·8	+15·5	*+20·0*	+18·6	+18·2	+16·9	+17·6	+19·2
Oct.	+6·6	+5·8	+6·0	+6·2	+7·8	+7·1	+4·8	+2·8	−7·8	−20·2	−27·8	*−29·0*	−27·4	−19·0	−9·6	−2·4	+3·4	+5·9	+11·4	+14·2	*+16·2*	+15·6	+15·6	+13·8
Nov.	+1·5	+1·9	+2·1	+3·1	+4·9	+5·4	+5·7	+5·1	+0·3	−8·1	−12·9	*−14·7*	−13·3	−11·5	−5·3	−0·3	+3·3	+4·8	+5·9	*+6·7*	+6·3	+5·3	+2·9	+0·9
Dec.	+0·8	+0·3	+1·0	−0·1	−0·4	+0·5	+0·8	−0·5	−3·8	−8·3	−11·6	*−12·9*	−11·6	−7·7	−3·4	−0·3	+4·4	+6·7	+8·8	*+9·3*	+8·6	+6·7	+6·8	+5·9
Year	+3·8	+3·3	+2·6	+3·4	+3·8	+3·9	+0·8	−4·2	−11·6	−20·8	−26·3	*−25·9*	−20·2	−12·1	−3·6	+4·5	+8·3	+12·5	+15·0	*+15·5*	+14·5	+12·7	+10·7	+9·2
Winter	+0·8	+0·1	−0·1	+0·9	+2·1	+3·7	+4·3	+3·0	−0·3	−6·7	−10·7	*−12·8*	−11·2	−8·3	−3·5	+0·1	+3·3	+5·0	+5·7	*+5·9*	+5·6	+5·5	+4·5	+3·2
Equinox	+6·5	+5·1	+5·0	+4·5	+4·9	+6·3	+4·0	−0·4	−10·4	−22·3	−29·5	*−29·8*	−25·8	−16·9	−9·2	+0·6	+5·4	+12·4	+15·5	*+15·6*	+14·9	+14·5	+14·6	+14·3
Summer	+4·1	+4·5	+3·5	+4·9	+4·5	+1·7	−5·8	−15·3	−23·9	−33·5	*−38·7*	−34·9	−23·7	−11·3	+2·0	+12·7	+16·3	+20·2	+23·8	*+24·9*	+23·1	+17·9	+12·9	+10·0

DECLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−1·50	−1·01	−0·96	−0·61	−0·70	−0·83	−0·64	−0·61	−0·58	−0·07	+0·58	+1·43	+2·04	*+2·43*	+1·82	+1·51	+1·38	+1·39	+0·98	−0·27	−0·42	−1·33	*−2·46*	−1·57
Feb.	−1·89	−1·56	+0·09	+0·34	−1·00	−1·15	−1·66	−2·34	*−2·95*	−2·16	−0·55	+1·42	+3·41	*+3·94*	+3·01	+2·10	+1·40	+0·95	+0·30	+0·76	−0·49	−0·46	−0·79	−0·72
Mar.	+0·01	−0·02	−0·51	−0·94	−1·25	−1·66	−2·53	−3·52	*−3·67*	−2·08	+0·09	+2·98	+4·47	*+4·92*	+3·23	+1·92	+0·79	+0·14	−1·15	−0·18	+0·61	−0·46	−0·75	−0·44
Apr.	−0·79	−0·32	−0·75	−1·81	−2·37	−3·24	−4·45	*−5·83*	−5·57	−3·76	−1·15	+1·73	+5·11	*+6·22*	+5·13	+4·23	+2·95	+1·88	+1·07	+1·05	+0·97	+0·82	+0·29	−1·14
May	−1·35	−0·77	−1·65	−3·17	−4·71	−6·16	*−7·61*	−7·27	−5·91	−2·15	+2·07	+5·37	+7·95	*+8·27*	+7·37	+5·39	+3·35	+1·68	+0·95	+0·77	+0·31	−0·75	−0·95	−1·03
June	−1·12	−1·30	−1·60	−2·74	−4·22	−5·91	*−6·22*	−5·98	−5·20	−4·26	−1·42	+2·42	+5·46	*+7·08*	+6·74	+5·58	+3·90	+2·85	+1·50	+1·02	+1·62	+0·96	+0·54	+0·30
July	+0·55	−1·42	−2·32	−3·63	−6·06	−7·26	*−7·75*	−7·02	−5·46	−3·67	−1·54	+2·16	+5·97	*+7·84*	+6·36	+5·43	+3·86	+2·84	+2·47	+2·40	+2·32	+2·03	+1·60	+0·30
Aug.	−0·82	−1·24	−1·34	−1·88	−3·52	−5·08	−6·56	*−6·86*	−6·28	−3·28	+0·72	+5·04	*+7·94*	+7·56	+5·84	+3·66	+1·36	+0·22	+0·62	+1·32	+1·16	+0·90	+0·44	+0·08
Sept.	−2·58	−2·40	−2·21	−1·26	−1·20	−2·62	−4·44	*−5·46*	−4·57	−3·36	−1·02	+2·52	+5·60	*+7·04*	+6·45	+5·42	+3·32	+1·68	+0·92	+0·50	+0·09	−0·84	−0·68	−0·90
Oct.	−0·29	−1·31	−1·59	−1·97	−2·35	−2·74	−2·31	−3·33	*−4·05*	−2·95	−0·69	+2·09	+4·31	*+4·93*	+4·21	+2·73	+1·65	+1·68	+1·47	+1·15	+0·89	−0·01	−0·17	−1·35
Nov.	−1·85	−1·08	−0·96	−0·51	−0·64	−0·90	−1·35	−1·30	−1·12	−1·15	−0·20	+1·60	+3·09	*+3·16*	+2·96	+2·15	+1·46	+1·24	+0·87	+0·48	+0·16	−1·65	−2·08	*−2·38*
Dec.	−1·86	−1·37	−0·84	0·00	−0·16	−0·89	−1·34	−1·92	*−2·10*	−1·77	−0·72	+0·48	+1·84	*+2·63*	+2·36	+1·68	+1·26	+1·45	+1·04	+0·74	+0·06	+0·33	−0·22	−0·68
Year	−1·12	−1·15	−1·22	−1·51	−2·35	−3·20	−3·91	*−4·29*	−3·95	−2·55	−0·32	+2·44	+4·77	*+5·50*	+4·62	+3·48	+2·22	+1·50	+0·92	+0·81	+0·61	−0·04	−0·44	−0·82
Winter	*−1·77*	−1·25	−0·67	−0·19	−0·63	−0·94	−1·25	−1·54	−1·69	−1·29	−0·22	+1·23	+2·59	*+3·04*	+2·54	+1·86	+1·37	+1·26	+0·80	+0·43	−0·17	−0·78	−1·39	−1·34
Equinox	−0·91	−1·01	−1·27	−1·49	−1·79	−2·57	−3·43	*−4·53*	−4·47	−3·04	−0·69	+2·33	+4·87	*+5·78*	+4·75	+3·57	+2·18	+1·35	+0·58	+0·63	+0·64	−0·12	−0·33	−1·03
Summer	−0·69	−1·18	−1·74	−2·85	−4·63	−6·10	*−7·03*	−6·78	−5·71	−3·34	−0·04	+3·75	+6·83	*+7·69*	+6·58	+5·01	+3·12	+1·90	+1·39	+1·38	+1·35	+0·79	+0·41	−0·09

VERTICAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−0·5	−1·6	−1·3	−3·8	−3·9	*−4·4*	−3·7	−2·6	−2·5	−1·8	−1·1	0·0	−1·1	−1·4	−0·7	0·0	+0·1	+0·6	+1·3	+5·0	+6·1	+6·0	*+6·7*	+4·6
Feb.	−4·4	−4·0	−4·2	*−5·2*	−5·0	−3·9	−4·2	−3·0	−2·2	−2·4	−2·2	−0·6	+1·2	+3·6	+5·4	+4·2	+4·6	+5·5	*+7·0*	+4·4	+3·8	+1·8	0·0	−0·2
Mar.	−3·7	−1·8	−0·3	−0·1	−0·5	−1·2	−1·5	−0·5	+0·5	+0·4	−1·7	−5·3	−5·9	−4·4	+0·9	+2·9	+2·7	+4·6	*+6·7*	+5·9	+3·1	+2·0	−1·1	−1·7
Apr.	−4·1	−4·6	−3·3	+1·0	+2·6	+1·7	+1·8	+0·8	−0·9	−3·2	−4·1	*−7·0*	−6·3	−4·0	−0·7	+0·4	+4·0	+8·1	*+9·0*	+8·2	+5·1	+1·8	−0·5	−5·8
May	−0·5	−5·4	−6·3	0·0	+4·7	+5·2	+5·5	+4·6	+0·7	−4·4	−9·7	*−13·8*	−13·3	−7·4	−4·1	+3·0	+8·3	*+11·6*	+9·5	+6·2	+6·3	+1·6	+1·3	−3·6
June	−4·3	−0·6	+1·8	+3·7	+6·8	+10·4	*+11·1*	+10·6	+3·4	−2·9	−6·2	−12·2	−13·3	*−13·4*	−11·8	−8·9	−2·6	+5·6	+7·7	+6·6	+4·6	+5·1	+0·2	−1·4
July	−10·0	−6·5	−2·0	+1·7	+4·5	+6·0	+5·1	+2·1	−0·8	−2·1	−2·4	−4·5	−9·8	*−10·1*	−7·4	−2·3	+5·3	*+8·8*	+7·7	+7·7	+7·4	+4·3	+0·4	−3·1
Aug.	+0·3	+1·1	+1·6	+2·5	+4·5	+6·5	+7·5	+7·7	+7·6	+2·1	−6·7	−13·7	*−14·5*	−9·3	−3·2	+1·1	+2·7	+1·7	+0·3	−0·7	+0·6	+0·7	+1·1	−1·5
Sept.	*−14·6*	−12·3	−6·8	−1·9	−6·2	−5·1	+2·4	+5·3	+3·4	+1·5	+1·8	−0·7	−4·4	−3·3	+3·2	+8·7	*+10·2*	+7·7	+6·6	+5·3	+3·6	+1·5	−1·4	−4·5
Oct.	*−15·4*	−6·9	−1·7	+1·0	+1·5	+1·1	+1·4	+1·7	*+4·1*	+3·6	+2·5	−0·3	−1·2	−0·1	+2·1	+1·8	+2·3	+2·5	+0·6	+0·7	−0·1	+0·4	−0·1	−1·5
Nov.	*−3·8*	−3·1	−3·0	−1·9	−1·9	−1·0	−0·1	+0·1	+1·2	+0·1	+1·2	+0·7	+1·0	−1·7	0·0	+1·3	+1·3	+1·6	+1·9	+1·7	+2·2	*+2·3*	+0·8	−0·9
Dec.	−1·3	−1·2	−0·9	−1·7	−2·7	−2·4	*+3·1*	+0·7	+1·3	+0·4	+1·1	+0·9	−0·1	−3·0	−0·3	+1·9	+1·9	+1·8	+0·9	+0·3	*+2·3*	+1·8	+1·5	−0·1
Year	−5·2	−3·9	−2·2	−0·4	+0·4	+1·1	+1·9	+2·3	+1·3	−0·7	−2·3	−4·7	*−5·6*	−4·5	−1·4	+1·2	+3·4	*+5·0*	+4·9	+4·3	+3·7	+2·4	+0·7	−1·6
Winter	−2·5	−2·5	−2·3	−3·1	*−3·4*	−2·9	−2·8	−1·2	−0·5	−0·9	−0·3	+0·3	+0·3	−0·6	+1·1	+1·9	+2·0	+2·4	+2·8	+2·9	*+3·6*	+3·0	+2·3	+0·9
Equinox	*−9·5*	−6·4	−3·0	0·0	−0·7	−0·9	+1·0	+1·8	+1·8	+0·6	−0·4	−3·3	−4·5	−2·9	+1·4	+3·5	+4·8	*+5·7*	+5·7	+5·0	+2·9	+1·4	−0·8	−3·4
Summer	−3·6	−2·9	−1·2	+2·0	+5·1	+7·0	*+7·3*	+6·3	+2·7	−1·8	−6·3	−11·1	*−12·7*	−10·1	−6·6	−1·8	+3·4	+6·9	+6·3	+4·9	+4·7	+2·9	+0·7	−2·4

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

DIURNAL INEQUALITIES OF THE TERRESTRIAL MAGNETIC ELEMENTS

INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

60 LERWICK

HORIZONTAL FORCE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−44·8	−32·0	−54·2	−2·4	+15·6	+13·2	+31·4	+27·2	+19·2	+16·8	+23·6	+10·2	+19·6	+10·8	+20·0	+82·0	*+88·0*	+51·8	+19·8	−35·2	−74·6	*−111·6*	−37·2	−57·2
Feb.	−125·2	*−145·5*	−97·0	−61·9	−60·3	−32·4	−10·7	−7·9	−6·2	−15·7	−1·6	+42·5	+32·6	+38·3	+94·2	+88·3	*+106·1*	+100·4	+91·9	+72·1	+60·2	−15·5	−73·8	−72·9
Mar.	−56·5	−157·2	*−168·5*	−146·6	−69·1	+7·0	+6·9	−16·6	−45·1	−8·0	+2·9	+77·8	+15·3	+68·0	+164·1	*+306·4*	+225·3	+111·8	+64·3	+52·2	−7·9	−122·2	−146·5	−157·8
Apr.	−148·2	−73·7	−103·9	−62·6	−58·3	−15·1	−0·6	−38·9	−40·5	−39·0	−28·1	−6·5	+35·2	+112·7	+150·9	*+255·4*	+202·5	+105·7	+76·6	+16·5	−34·9	−42·8	−83·9	*−178·5*
May	−8·9	−45·3	−37·7	−24·5	−54·3	−20·1	−50·9	*−72·3*	−59·7	−23·3	−25·9	−18·7	−7·5	+1·3	+35·9	+83·1	+111·9	*+122·3*	+84·3	+43·5	+22·1	−3·5	−24·3	−27·5
June	−27·6	−45·5	*−53·0*	−20·8	−17·0	−24·9	−27·8	−38·0	−41·8	−47·5	−50·6	−40·0	−36·8	+2·5	+94·4	+105·2	*+175·7*	+131·8	+62·4	+28·0	−13·6	−35·5	−37·6	−42·0
July	−68·1	−63·0	−47·1	−87·5	−93·9	−109·6	*−141·1*	−32·3	−1·1	−12·2	−10·9	−9·7	−4·9	+23·6	+39·7	+68·1	+109·9	*+128·6*	+127·3	+107·3	+71·9	+41·0	+21·3	−57·3
Aug.	−34·3	−20·5	−27·0	−21·9	−39·5	*−56·1*	−8·3	−8·7	−26·6	−38·1	−47·5	−48·3	−22·9	+18·9	+39·2	+60·3	+94·9	*+96·1*	+60·9	+44·9	+24·4	−14·3	−14·9	−10·7
Sept.	−88·1	−133·3	−222·7	−257·1	−235·1	−225·5	*−275·7*	−142·9	−62·3	−14·7	−8·1	+83·9	+164·9	*+353·1*	+349·5	+319·1	+322·1	+241·3	+132·3	−10·9	+6·3	−99·1	−96·3	−100·7
Oct.	−60·8	−48·8	−29·8	−7·2	+13·0	+13·2	+16·4	+16·0	+3·2	−7·2	−10·2	−6·0	+6·8	+28·8	+30·2	+29·6	*+38·6*	+28·0	+26·6	+19·6	+9·8	−0·2	−46·0	*−63·6*
Nov.	+1·4	−3·3	−3·7	−1·6	+9·7	+14·7	+14·8	+8·5	+3·7	−16·6	*−25·3*	−24·1	−5·8	−6·3	+0·5	+4·6	*+24·3*	+14·7	+0·4	+0·3	+5·5	−13·6	+0·3	−3·1
Dec.	+4·1	+4·9	+4·7	+4·5	+6·1	+9·9	*+12·3*	+4·7	−2·5	−7·7	−9·5	−14·9	*−21·3*	−13·1	+1·3	+4·7	+15·3	+6·7	+3·5	+2·7	−6·1	−5·5	−6·1	+1·3
Year	−54·7	−63·6	*−70·0*	−57·5	−48·6	−35·5	−36·1	−25·1	−21·6	−17·8	−15·9	+3·9	+14·6	+53·2	+85·0	+117·2	*+126·2*	+94·9	+62·5	+28·4	+5·3	−35·2	−45·4	−64·2
Winter	−41·1	*−44·0*	−37·5	−15·3	−7·2	+1·3	+11·9	+8·1	+3·5	−5·8	−3·2	+3·4	+6·3	+7·4	+29·0	+44·9	*+58·4*	+43·4	+28·9	+10·0	−3·7	−36·5	−29·2	−33·0
Equinox	−88·4	−103·3	*−131·2*	−118·4	−87·4	−55·1	−63·3	−45·6	−36·2	−17·2	−10·9	+37·3	+55·5	+140·7	+173·7	*+227·6*	+197·1	+121·7	+74·9	+19·3	−6·7	−66·1	−93·2	−125·1
Summer	−34·7	−43·6	−41·2	−38·7	−51·2	−52·7	*−57·0*	−37·8	−32·3	−30·3	−33·7	−29·2	−18·0	+11·6	+52·3	+79·2	*+123·1*	+119·7	+83·7	+55·9	+26·2	−3·1	−13·9	−34·4

DECLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−3·54	−2·10	−0·76	−2·18	−2·60	+1·50	+2·40	+4·76	+4·56	+3·84	+3·32	+3·08	*+7·10*	+4·96	+5·22	+3·76	−2·22	+1·18	−1·42	−5·96	−5·20	*−10·12*	−3·64	−5·94
Feb.	*−15·50*	−7·25	−8·10	−7·23	−8·40	+1·21	+2·16	+3·97	+0·02	+0·09	−2·12	−2·27	+6·82	*+9·65*	+7·66	+6·95	+4·84	+4·19	+7·96	+6·47	+0·14	−11·07	+1·56	−1·75
Mar.	−8·05	*−16·99*	−10·74	−16·41	−7·41	+3·37	+3·03	+2·81	+0·16	+6·91	+5·83	−1·15	−6·43	−2·39	+5·38	+15·49	+12·13	*+15·77*	+5·77	−2·05	−1·00	−1·39	+3·03	−5·67
Apr.	−7·85	−6·95	−8·63	*−17·97*	−9·89	−0·94	−1·09	+2·05	−0·31	+0·35	+2·51	+5·35	+5·79	+6·85	+4·13	+8·95	*+10·33*	+9·96	+9·97	+6·17	+1·61	−2·25	−6·59	−11·55
May	−2·05	−4·69	−1·66	−4·15	*−7·25*	−5·57	−2·85	−0·15	−1·84	+0·09	−0·51	+3·99	+5·29	+5·07	+4·80	*+6·43*	+2·67	+3·59	+1·83	+0·81	+0·74	+0·49	−1·05	−4·03
June	−2·21	−2·41	−2·69	−4·54	−6·71	−9·18	*−11·24*	−8·31	−5·37	−5·11	−0·91	+2·79	+8·73	+8·79	+9·93	+6·43	*+10·26*	+8·32	+8·63	+4·11	−0·01	−1·54	−4·29	−3·47
July	−2·90	*−13·07*	−10·90	−11·99	−5·26	−10·03	+3·82	−11·09	−8·50	−7·39	−1·24	+3·41	+7·96	+7·11	+7·82	+8·03	+4·94	+6·29	+6·20	+6·37	*+9·76*	+5·91	+1·96	+2·79
Aug.	−0·81	−3·76	*−9·33*	−5·11	−1·47	−5·72	−4·85	−7·39	−6·19	−4·30	−0·99	+2·31	+7·03	+8·20	+8·81	+7·85	*+9·61*	+4·92	+1·69	+1·91	−0·37	+1·66	−0·91	−2·79
Sept.	−0·52	−5·16	−10·50	−8·54	*−10·74*	−0·77	−4·64	−7·10	−4·82	+0·68	+3·10	−4·90	+5·50	−3·56	+8·80	*+15·36*	+13·16	+10·55	+10·70	+4·48	+6·60	−0·98	−7·90	−8·80
Oct.	−9·12	−3·69	*−12·39*	−9·34	−5·99	+0·79	+0·72	+1·29	+0·21	+1·72	+3·95	+6·51	+8·28	+8·91	+9·03	+7·90	+5·31	+3·83	+3·68	−0·29	−3·23	−8·18	−4·89	−5·51
Nov.	−3·32	−3·73	−2·25	−2·32	−0·95	−1·27	−0·44	+1·59	+1·01	+0·82	+1·93	+4·81	+7·14	*+8·29*	+5·79	+2·92	+4·75	+2·27	−1·52	−2·29	−3·03	−4·00	*−8·85*	−7·35
Dec.	−2·63	−1·70	−1·10	−0·65	−0·60	−0·56	−0·35	+0·26	0·00	+0·05	+1·50	+3·58	+4·39	+5·16	*+5·68*	+3·95	+3·92	+1·38	+0·11	−4·04	−2·52	−4·33	*−6·80*	−4·70
Year	−4·87	−5·96	−6·59	*−7·54*	−5·56	−2·26	−1·11	−1·44	−1·76	−0·19	+1·36	+2·29	+5·63	+5·59	+6·92	*+7·83*	+6·64	+6·02	+4·47	+1·31	+0·29	−2·98	−3·20	−4·90
Winter	−6·25	−3·69	−3·05	−3·09	−3·14	+0·22	+0·94	+2·65	+1·40	+1·20	+1·16	+2·30	+6·36	*+7·01*	+6·09	+4·39	+2·82	+2·25	+1·28	−1·45	−2·65	*−7·38*	−4·43	−4·93
Equinox	−6·39	−8·20	−10·57	*−13·07*	−8·38	+0·61	−0·49	−0·24	−1·19	+2·41	+3·85	+1·45	+3·29	+2·45	+6·83	*+11·93*	+10·23	+10·03	+7·53	+2·08	+0·99	−3·20	−4·09	−7·88
Summer	−1·99	−5·98	−6·15	−6·45	−5·17	*−7·63*	−3·78	−6·73	−5·47	−4·18	−0·91	+3·13	+7·25	+7·29	*+7·84*	+7·19	+6·87	+5·78	+4·59	+3·30	+2·53	+1·63	−1·07	−1·87

VERTICAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−60·1	−53·4	−58·3	*−62·0*	−52·5	−32·8	−27·5	−12·2	−2·7	+6·6	+14·5	+29·6	+49·3	+51·8	+50·1	*+74·0*	+69·7	+50·8	+47·7	+46·6	+9·5	−25·6	−60·1	−53·0
Feb.	0·0	−42·9	−75·2	−56·8	*−103·8*	−66·9	−45·4	−15·8	−3·2	+8·9	+32·2	+54·6	+46·6	+48·7	*+88·0*	+86·0	+82·8	+67·5	+42·2	+44·8	+0·6	−25·9	−75·0	−92·0
Mar.	−75·4	−25·1	*−164·4*	−66·7	−82·5	−39·2	+29·3	+51·9	+68·2	+50·7	*+95·0*	+92·7	+46·2	+33·9	−41·4	−153·7	−12·9	+31·0	+81·7	+64·3	+46·0	+37·7	−4·0	−63·3
Apr.	+2·3	−36·0	−22·9	*−91·3*	−62·9	−46·0	−57·7	−49·9	−43·3	−28·0	−6·1	+11·5	+41·9	+69·2	*+99·3*	+71·5	+41·1	+36·4	+38·3	+19·5	+3·3	−19·8	−6·7	+36·3
May	−27·7	−48·0	−69·5	−66·4	*−114·3*	−68·8	−36·3	−34·0	−18·9	−6·2	+20·3	+32·2	+52·9	+69·2	+71·3	+70·4	*+77·3*	+60·2	+42·1	+33·0	+30·9	+23·6	−37·3	−56·0
June	−28·9	−55·4	−59·4	−40·2	−29·7	−23·3	−17·2	−16·0	−18·0	−14·9	−14·0	−10·2	+2·3	+20·7	+76·6	+103·6	*+103·8*	+86·9	+46·6	+27·3	+0·8	−26·3	*−78·4*	−36·7
July	−6·9	−19·0	+42·9	*+66·7*	−22·9	−53·0	−25·7	*−65·5*	−21·7	−11·8	−8·7	−4·5	−9·3	−5·0	+1·7	+13·3	+40·7	+39·2	+31·9	+27·3	+40·5	+10·8	−44·1	−16·9
Aug.	−47·4	−62·5	*−70·4*	−66·5	−62·1	−69·6	−55·7	−13·1	−0·2	+5·5	+10·0	+9·3	+8·2	+18·5	+40·8	+73·1	+70·3	*+89·6*	+78·9	+51·3	+40·2	−11·5	−17·4	−19·3
Sept.	−82·9	−126·2	*−238·4*	−110·1	−180·0	−159·8	−84·9	−47·0	+16·6	+50·1	+64·6	+127·6	*+162·5*	+142·0	+138·6	+74·7	+72·2	+67·8	+79·1	+36·0	+77·8	+2·3	−47·6	−35·0
Oct.	−44·0	−60·4	−65·6	−36·2	−22·4	−18·9	−30·2	−17·6	−5·2	+7·2	+15·2	+18·2	+30·2	+44·4	+51·6	+47·4	+55·2	*+61·7*	+56·8	+50·8	+26·8	−1·2	−52·6	*−111·2*
Nov.	−15·9	−20·8	−24·6	−26·3	−26·8	−25·6	−22·3	−22·2	−18·0	−8·7	−5·2	+3·6	+13·3	+32·0	+45·4	*+55·7*	+54·0	+52·6	+30·7	+17·0	−0·6	−17·3	−25·8	*−44·2*
Dec.	−9·6	*−14·2*	−13·8	−11·4	−9·0	−10·4	−12·8	−13·6	−12·4	−14·0	−13·2	−8·2	−1·0	+4·8	+11·2	+23·8	*+39·6*	+24·4	+17·8	+15·2	+14·4	+1·6	−3·4	−5·8
Year	−33·0	−47·0	*−68·3*	−47·3	−64·1	−51·2	−32·2	−21·3	−4·9	+3·8	+17·1	+29·7	+36·9	+44·2	+52·8	+45·0	*+57·8*	+55·7	+49·5	+36·1	+24·2	−4·3	−37·7	−41·4
Winter	−21·4	−32·8	−43·0	−39·1	−48·0	−33·9	−27·0	−15·9	−9·1	−1·8	+7·1	+19·9	+27·1	+34·3	+48·7	+59·9	*+61·5*	+48·8	+34·6	+30·9	+6·0	−16·8	−41·1	*−48·7*
Equinox	−50·0	−61·9	*−122·8*	−76·1	−86·9	−66·0	−35·9	−15·7	+9·1	+20·0	+42·2	+62·5	+70·2	*+72·4*	+62·0	+10·0	+38·9	+49·2	+64·0	+42·7	+38·5	+4·7	−27·7	−43·3
Summer	−27·7	−46·2	−39·1	−26·6	*−57·3*	−53·7	−33·7	−32·1	−14·7	−6·9	+1·9	+6·7	+13·5	+25·9	+47·6	+65·1	*+73·0*	+69·0	+49·9	+34·7	+28·1	−0·9	−44·3	−32·2

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1946

The ranges are derived from the diurnal inequalities printed in Tables 58 to 60

61 LERWICK

	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	32·2	7·54	35·6	9·9	4·89	11·1	199·6	17·22	136·0
Feb.	53·3	7·69	55·0	27·6	6·89	12·2	251·6	25·15	191·8
Mar.	113·4	12·46	81·7	31·8	8·59	12·6	474·9	32·76	259·4
Apr.	83·7	13·46	55·6	56·5	12·05	16·0	433·9	28·30	190·6
May	79·7	12·37	68·2	67·1	15·88	25·4	194·6	13·68	191·6
June	95·4	14·25	61·9	67·7	13·30	24·5	228·7	21·50	182·2
July	86·2	13·75	47·3	65·1	15·59	18·9	269·7	22·83	132·2
Aug.	73·3	14·50	42·3	60·4	14·80	22·2	152·2	18·94	160·0
Sept.	129·7	12·85	96·3	56·4	12·50	24·8	628·8	26·10	400·9
Oct.	38·2	10·19	52·3	45·2	8·98	19·5	102·2	21·42	172·9
Nov.	26·9	8·87	32·6	21·4	5·54	6·1	49·6	17·14	99·9
Dec.	20·5	7·34	24·9	22·2	4·73	5·4	33·6	12·48	53·8
Year	58·9	9·41	48·9	41·4	9·79	10·6	196·2	15·37	126·1
Winter	23·3	7·42	36·8	18·7	4·81	7·0	102·4	14·39	110·2
Equinox	76·7	11·11	64·0	45·4	10·31	15·2	358·8	25·00	195·2
Summer	82·7	13·49	53·0	63·6	14·72	20·0	180·1	15·47	130·3

AVERAGE DEPARTURE

Arithmetical average of diurnal inequalities in Tables 58 to 60 taken regardless of sign

62 LERWICK

	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	7·3	1·78	11·0	2·1	1·13	2·5	37·4	3·81	41·7
Feb.	13·9	1·84	14·9	6·7	1·47	3·5	60·5	5·31	50·2
Mar.	23·2	3·41	20·6	8·0	1·60	2·5	91·8	6·64	60·7
Apr.	20·8	3·76	13·7	14·7	2·62	3·7	79·6	6·17	39·3
May	22·3	3·48	19·6	15·5	3·62	5·7	42·0	2·98	48·6
June	23·5	3·85	13·6	15·7	3·33	6·5	50·0	5·67	39·1
July	26·4	4·09	12·4	16·1	3·84	5·1	61·5	6·86	26·3
Aug.	17·0	3·38	10·6	15·7	3·07	4·1	36·6	4·50	41·3
Sept.	35·3	3·58	26·8	13·9	2·80	5·1	164·4	6·58	92·7
Oct.	9·5	2·74	13·5	11·9	2·09	2·3	23·3	5·18	38·8
Nov.	6·6	2·18	8·9	5·5	1·43	1·5	8·6	3·44	25·4
Dec.	4·9	1·83	6·8	5·1	1·15	1·4	7·2	2·50	12·7
Year	15·5	2·86	13·8	10·4	2·24	2·7	49·3	4·03	37·7
Winter	6·6	1·83	10·5	4·5	1·26	1·9	21·4	3·34	31·6
Equinox	20·6	3·34	18·0	12·0	2·22	3·0	87·3	5·31	48·9
Summer	22·1	3·65	13·6	15·6	3·35	5·0	46·0	4·78	34·6

NON-CYCLIC CHANGE

63 LERWICK

	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	−0·1	−0·05	−0·1	+1·0	+0·03	+2·7	−9·6	−0·25	−4·9
Feb.	+0·1	−0·01	+0·5	+4·4	+1·41	+2·5	+35·7	+6·66	+43·3
Mar.	−3·5	−0·44	−2·9	+4·7	+0·38	+2·2	−129·1	−2·45	−52·1
Apr.	+3·3	+0·40	+3·6	+4·7	+0·23	0·0	−46·8	−2·36	−8·0
May	+0·1	−0·01	−2·1	−1·1	−0·74	−5·9	−14·9	−1·92	−17·3
June	0·0	+0·09	+0·7	+9·2	+0·51	+1·2	−12·9	−1·70	−21·3
July	−0·3	+0·02	−0·6	+2·5	−0·79	+7·1	−44·5	−2·20	+1·5
Aug.	−0·4	−0·24	+0·3	+4·6	+0·43	−2·2	−8·3	−1·46	−2·2
Sept.	−0·4	+0·01	−0·5	+9·9	+1·45	+7·9	−81·6	−4·26	+40·7
Oct.	−0·6	−0·13	−0·2	+5·2	−1·25	+12·8	−12·2	+2·53	−15·1
Nov.	+1·2	−0·02	+0·9	+0·1	−0·86	+1·6	−9·1	−3·01	−28·4
Dec.	+0·4	+0·12	−0·2	+4·3	+0·76	−0·1	−6·8	−1·11	+5·1
Year	0·0	−0·02	−0·1	+4·1	+0·13	+2·5	−28·3	−0·96	−4·9
Winter	+0·4	+0·01	+0·3	+2·5	+0·33	+1·7	+2·5	+0·57	+3·8
Equinox	−0·2	−0·04	0·0	+6·1	+0·20	+5·7	−67·4	−1·63	−8·6
Summer	−0·1	−0·03	−0·4	+3·8	−0·15	+0·1	−20·1	−1·82	−9·8

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS

For all, *a*, quiet, *q*, and disturbed, *d*, days for *H*, *D* and *V* and for all days for *N*, *W*, *I* and *T*

64 LERWICK

	Horizontal force			Declination (west)			Vertical force			North component all days	West component all days	Inclination (north) all days	Total force all days
	a	*q*	*d*	*a*	*q*	*d*	*a*	*q*	*d*				
	14,000γ +			11° +			46,000γ +						
	γ	γ	γ	′	′	′	γ	γ	γ	γ	γ	° ′	γ
Jan.	365	372	344	20·8	21·2	19·9	974	977	959	14084	2826	72 59·8	49121
Feb.	357	364	347	19·7	20·3	17·9	976	983	987	14077	2820	73 00·3	49121
Mar.	344	361	312	18·2	19·5	14·6	977	990	918	14066	2811	73 01·2	49118
Apr.	350	360	338	18·2	18·8	18·1	1006	998	1024	14072	2813	73 01·4	49158
May	362	368	359	18·2	18·2	18·1	991	997	981	14083	2815	73 00·3	49137
June	371	367	391	18·4	18·9	19·4	992	996	999	14092	2818	72 59·7	49140
July	363	368	350	17·8	18·1	18·4	1006	1006	1016	14085	2814	73 00·5	49151
Aug.	363	364	363	16·5	16·1	17·3	996	993	993	14086	2808	73 00·3	49132
Sept.	342	354	296	14·6	15·1	12·2	987	993	964	14070	2796	73 01·6	49127
Oct.	354	362	340	14·5	15·0	13·0	991	990	981	14079	2798	73 00·8	49134
Nov.	359	367	353	13·5	13·6	13·8	993	988	1002	14084	2795	73 00·6	49138
Dec.	365	366	366	13·1	13·1	13·6	988	986	992	14090	2795	73 00·0	49145
Year	358	364	347	17·0	17·3	16·4	989	991	984	14081	2809	73 00·5	49134

65 LERWICK

Night commencing			
			JANUARY
1		☌	Variable sky. Aurora suspended behind cloud
2	a	..	Fine
3		☌	Very cloudy until 01h. Then clear and bundles of rays observed until 04h. Glow until 06h.
4		☌	Variable sky. Slight activity with faint rays until 23h.
5		☌	Variable sky. Slight activity 22h.40m.-23h.40m.
6	c	..	Variable sky
7	a-ca	..	Fine, cloud increasing 02h.
8	ca-a	..	Cloudy becoming variable
10	b-a	☌	Moonlight Slight activity 02h.-05h.
12	b-a	..	Moonlight. Variable sky
13	b	..	Fine moonlight
14	b	..	Fine moonlight
15	b	..	Fine moonlight
16	b	..	Fine moonlight
17	b-c	..	Variable sky then cloudy
18	c	..	Cloudy
20	c	..	Cloudy
21	c	..	Cloudy
23	b	☌	Variable sky. Diffuse surface all night. Faint rays at 22h. Moonlight
24	c-a	..	Cloudy becoming clear
27	a	..	Variable sky
28	c-a	..	Variable sky
29	c-a	..	Variable sky
30	a	..	Variable sky
31	c	..	Mainly cloudy
			FEBRUARY
1		☌	Variable sky. Aurora suspected
2	a	☌	Fine. Faint diffuse surface with rays 22h.-02h.30m.
3		☌	Auroral light seen through breaks in cloud
4		☌	02h.-03h.40m. Diffuse surface with a few faint rays 04h.-06h. Glow
5	a	..	Fine
6	c	..	Variable sky
7		☌	Variable sky. Intense auroral activity all night
8	b	..	Variable sky. Moonlight
9	c	..	Cloudy
10	b	..	Variable sky. Moonlight
11	b	..	Cloudy moonlight
12	c	..	Mainly cloudy
13	c	..	Mainly cloudy
14	c	..	Mainly cloudy
15	c	..	Mainly cloudy
17	c	..	Variable sky
19		☌	Variable sky. Moderate aurora 19h.30m.-24h. Rayed bands predominant 19h.30m.-20h.15m. Homogeneous arcs from 20h.15m. to 21h. Activity decreased until 21h.50m. when rayed bands reappeared developing into pulsating arc at 21h.57m.
20		☌	Variable sky. Moderate activity 18h.45m.-03h. Rays 20h.-21h.20m. Homogeneous arcs, rayed bands and arcs with rayed structure from 23h.-01h.20m. with flaming aurora until 01h.45m. Activity decreased at 02h.
21	c-ca	..	Cloudy becoming variable
23		☌	Variable sky. Faint diffuse surface at 04h.30m.
24		☌	Fair mainly diffuse surface 19h.30m.-03h.45m. with occassional appearance of rayed bands and homogeneous arcs
25		☌	Variable sky. Homogeneous arc 23h.50m. Faint diffuse surface midnight to 01h.
26		☌	Variable sky. Faint auroral light
27	c	..	Variable sky - mainly cloudy
28		☌	Fine. Faint auroral light
			MARCH
1		☌	Homogeneous arc at 24h. Rayed arc at 01h. with rays from 02h.-04h. diffuse surface becoming a faint glow
2	a	..	Variable sky
3	c	..	Mainly cloudy
4		☌	Cloudy. Faint auroral light
5		☌	Mainly fine. 20h.-24h. diffuse surface. 01h.-02h. homogeneous arc 02h.15m.-03h. rayed bands. Homogeneous band developed at 03h. Activity decreased and ceased at 05h.
6		☌	Variable sky. Faint diffuse surface and glow all night
7	a	..	Fair
8	c	..	Variable sky
9	c	..	Cloudy
13	c	..	Cloudy moonlight
14	b	..	Variable sky, moonlight
15	b	..	Cloudy moonlight
16	b	..	Cloudy moonlight
19	b	..	Cloudy moonlight
20	b	..	Variable then cloudy
21	b	..	Bright moonlight sky variable
22		☌	Glow from 23h.30m.-24h.20m. Brighter rays at 24h.20m. then diffuse surface until 03h.
23		☌	Variable sky becoming cloudy. Diffuse surface seen between clouds. Rays at 02h. Sky covered with cloud at 02h.15m. until daybreak
24		☌	Variable. Moderate auroral activity. Rays predominating all night with intermittent occurences of coronas at 00h.55m., 03h.38m., 03h.50m., 03h.54m. Rays persisting after dawn
27		☌	Fine. 20h.40m. Glow until 21h.40m. when arcs with rayed structure developed. At 22h.11m. flaming aurora with pulsating rays across most of northern sky. Until 04h. a pulsating surface was the predominant feature
28		☌	Variable sky. Homogeneous arc 21h.20m.-22h. Pulsating surface 22h.10m.-24h. when activity decreased
29	c	..	Cloudy
30		☌	Faint diffuse surface
			APRIL
1	c-ca	..	Cloudy
3		☌	Fine becoming cloudy. Faint diffuse surface seen while sky was clear
4		☌	Variable sky. Very slight activity
5		☌	Mainly cloudy very slight activity
7	c	..	Cloudy
8	b	..	Variable sky. Moonlight
9	b	..	Variable sky. Moonlight
14	b	☌	Fine. Bright moonlight. Homogeneous arcs followed by homogeneous bands (23h.40m.-02h.40m.) which developed into a feeble glow
15	ca	..	Variable sky
17	c	..	Variable sky
18	a	..	Fine
10	a	..	Variable sky
20	⎵	..	Variable sky
21	ca	..	Partly cloudy
23		☌	Variable sky. Complete corona 00h.40m. with rays from all directions. 00h.55m. rays 02h.-03h. diffuse surface
24		☌	Fair. Diffuse surface developing into homogeneous bands and pulsating surface which obtained for 01h.-02h. 03h. Diffuse surface
25	c	..	Variable sky
26	a	..	Fine
27	c	..	Partly cloudy
28	a	..	Fine
29	a-ca	..	Fine becoming cloudy
30	c	..	Cloudy
			MAY
6	b	☌	Variable sky. Bright moonlight and almost continuous daylight
			JULY
29		☌	Cloudy. Bright auroral light. Form not recognisable because of cloud
			AUGUST
16	b	☌	Variable sky. Rayed bands and rays 21h.45m.-23h.
			SEPTEMBER
3	c-a	..	Cloudy becoming fine
4	c	☌	Mainly cloudy. Faint light seen through clouds
5	c	..	Cloudy
6	c-b	..	Cloudy then clear with slight fog
7	ca	..	Variable sky moonlight
8		☌	Variable sky. Homogeneous arcs from 00h.30m.-02h. Sky clouded over but activity observed until 03h.
9	cb	..	Moonlight. Very cloudy
10	b-cb	..	Fine becoming cloudy moonlight
14	c	..	Variable sky
16	b	☌	Fine becoming cloudy. Moonlight. Extensive diffuse surface from 20h.-23h., faint. Thereafter rayed and homogeneous bands, rays and flaming aurora until 02h.30m.
17	b	☌	Fine becoming cloudy. Moonlight Rays 19h.50m.-20h.10m. Diffuse surface until 01h.30m. 03h.-03h.20m. rays
18	b	☌	Variable sky, bright moonlight. Moderate aurora of which rays and arcs with rayed structure were prominent
19		☌	Variable sky 20h.30m.-23h.30m. Diffuse surface
20	a	..	Mainly fine
22		☌	Variable sky. Moderate activity until dawn. Bright flaming aurora from 02h. following faint diffuse surface and rayed bands
23		☌	Cloudy becoming fine 24h. Rays and parallel bands, 24h.10m. Flaming aurora until dawn
27		☌	Cloudy becoming variable sky 03h.40m. faint diffuse surface until 04h.15m. Observation difficult then because of cloud and dawn
28		☌	Cloudy. 22h.-04h.30m. Occassional glimpses of auroral light
29		☌	Fair 19h.30m.-02h.45m. Diffuse surface of moderate intensity with occassional rays 02h.45m.-03h.30m. Flaming aurora
30		☌	Cloudy becoming fair. Faint diffuse surface at 01h.50m.

65 LERWICK (contd.)

Night commencing				Night commencing				Night commencing			
			OCTOBER				NOVEMBER				NOVEMBER (contd.)
3	c	..	Cloudy	1	c	..	Variable sky	22		ϕ	Variable sky. Faint diffuse surface
4	c-ca	..	Cloudy	2	c-a	..	Cloudy then fine				
5	b	ϕ	Faint diffuse surface. Moonlight	4	c	..	Mainly cloudy	25	a	ϕ	Fair. Faint diffuse surface
6		ϕ	Fine. Moonlight. Faint diffuse surface 22h.45m.-04h.30m. with homogeneous arc at 23h.45m.	5	c	..	Mainly cloudy	26	ca	..	Variable sky
				6	b	ϕ	Very cloudy then fair with bright moonlight. Faint diffuse surface	27		ϕ	Very cloudy. Faint diffuse surface observed through gaps in cloud
7	cb	..	Variable sky becoming fair. Moonlight	7	b	..	Variable sky. Bright moonlight	30	a-ca	..	Variable sky then cloudy
8	b	..	Fair. Moonlight	9	cb	..	Mainly cloudy. Bright moonlight				
9	b	..	Fine. Moonlight	10	c-cb	..	Very cloudy then variable sky with bright moonlight				
10	b	ϕ	Fine. Moonlight. Faint diffuse surface 02h.-04h.	12	cb	..	Mainly cloudy. Bright moonlight				DECEMBER
17	c	..	Cloudy	13	c	..	Mainly cloudy				
21	a	..	Variable sky	14	a	..	Variable sky	1	b	..	Variable sky. Moonlight
22	c	..	Mainly cloudy	15	c	..	Cloudy	3	b	..	Fair. Moonlight
23	c-a	..	Cloudy then fine	16		ϕ	Fine. Mainly diffuse surface. Homogeneous arcs 20h.40m.-21h.	4	b	..	Fine. Bright moonlight
24	a-ca	..	Fine then cloudy					6	b	ϕ	Fine. Faint diffuse surface. Moonlight
27		ϕ	Faint diffuse surface 20h.45m.-00h.30m.	19		ϕ	Variable sky, as above	12	b-cb	..	Fair then cloudy
28	c	..	Variable sky	20	ca	..	Mainly cloudy	13	a	..	Variable sky
30	a-c	..	Fine becoming cloudy	21		ϕ	Cloudy with clear intervals. Faint light	19		ϕ	Variable sky. Faint auroral light seen through breaks in cloud
31	c	..	Mainly cloudy								

In the interests of brevity there have been omitted from Table 64 all dates on which the sky throughout the evening remained completely overcast and on which, therefore, no opportunity arose of determining whether or not aurora occurred. The nights on which aurora was actually seen are indicated by the symbol ϕ. The nights on which aurora was not seen, despite at least an occasional interval of more or less clear sky, are indicated by the symbol ..; in the latter case also, remarks on the weather are added to assist the reader in judging how far the fact of no observation of aurora may be taken as indicating that there was not actual aurora.

The letters a, b, c, have the following significance:-

a = Conditions favourable for seeing aurora
b = Unfavourable for faint aurora (moonlight, mist, Cs, etc.) but not such as to mask bright aurora
c = Cloudy, but aurora not seen in clear intervals
ca, cb = Have been used for "Cloudy, with conditions a or b in the intervals"
Changing conditions have been indicated by a hypen, e.g., a-c

66 OTHER SCOTTISH STATIONS

Night commencing		Night commencing		Night commencing	
	JANUARY		MARCH (contd.)		SEPTEMBER (contd.)
4	Gordon Castle; Nairn	29	Stornoway; Alness	18	Dalry (Templand); Paisley; Edinburgh; Turnberry; Greenock; Nairn; Tiree; Baltasound; Benbecula (02h.-03h.) Wick (03h.00m.)
5	Lossiemouth	31	Stornoway		
6	Stornoway; Lossiemouth				
12	Stornoway				
13	Fort William				
23	Stornoway; Gordon Castle; Wick		APRIL		Kinloss (00h.01m.) Alness Stornoway (21h.-03h.)
26	Stornoway				
		1	Stornoway	19	Nairn; Dyce; Tiree Stornoway
		3	Stornoway		
		4	Duntuilm	20	Stornoway
		5	Stornoway; Fincastle; Pitlochry	22	Edinburgh; Aberdeen Montrose; Duntuilm
	FEBRUARY	19	Benbecula		
		23	Leuchars; Prestwick	23	Edinburgh; Aberdeen
5	Alness		(23h.35m.-02h.00m.) Stornoway		(21h.00m.) Nairn; Dyce (21h.00m.)
7	Kettins; Montrose; Gordon Castle; Nairn; Perth; Aberdeen; Stornoway; Fortrose; Alness; Tiree; Leuchars; Wick (23h.00m.) Bell Rock; Benbecula (23h.00m.) Lossiemouth		(23h.15m.-02h.45m.) Tiree (23h.50m. bright); Charterhall; Lossiemouth (23h.50m.-04h.00m.) West Freugh (23h.00m.-02h.00m.) Paisley; Fortrose; Edinburgh; Dunfermline Aberdeen; Buddon Ness		Eskdalemuir; Duntuilm; Stornoway; Tiree; Wick (21h.00m.)
				25	Edinburgh
				27	Aberdeen; Montrose
				28	Polnish (Lochailoch (22h.00m.) Dalry (Templand); Oban Fincastle (Pitlochry)
8	Buddon Ness; Kettins; Aberdeen; Stornoway; Alness		Turnberry; Benbecula; Longforgan; Donibristle Kirkaldy; West Linton;		Edinburgh; Carluke Kilmarnock; Gordon Castle Eskdalemuir; Penicuik
9	Buddon Ness		Leuchars (22h.-24h. moderate to bright)		Auchincruive; Stornoway
19	Paisley; Kettins; Nairn; Edinburgh; West Linton; Aberdeen; Alness	24	Stornoway (23h.15m.-02h.45m.) Fincastle; Pitlochry; Kettins; Benbecula		(21h.-23h. very bright) Tiree Benbecula (22h.00m.) Banff; Pitreavie (21h.00m. very bright)
		25	Stornoway; Wick		
20	Paisley; Gordon Castle; Nairn; Stornoway (20h.00m.) Alness; Eskdalemuir; Crail	26	Stornoway; Tiree (03h.00m.), Wick; Benbecula	29	Alness (02h.00m.) Nairn Eskdalemuir; Stornoway (23h.05m.) Tiree; Hatston
		27	Stornoway; Alness (02h.00m.)		
21	Kettins; Stornoway; Eskdalemuir	28	Stornoway		Benbecula (01h.00m.) Kinloss
		29	Stornoway	30	Kinloss (02h.00m.) Stornoway
24	Buddon Ness; Kettins; Gordon Castle; Nairn; Aberdeen; Stornoway	30	Benbecula		
25	Stornoway				OCTOBER
			MAY		
				3	Stornoway (04h.05m.)
		6	Fortrose	4	Stornoway
				6	Stornoway; Baltasound
	MARCH			19	Fortrose
				25	Duntuilm
2	Benbecula		JUNE	26	Duntuilm; Fortrose Benbecula
4	Benbecula (22h.00m.) Alness				
6	Benbecula		Nil	27	Duntuilm; Stornoway Benbecula
10	Gordon Castle				
22	Nairn				
23	Montrose; Oxenfoord Castle Gardens; Fencastle House; Gordon Castle; Nairn;		JULY		NOVEMBER
	Buddon Ness; Dunfermline	26	Prestwick RAF; Stornoway		
	Tiree; Balerno; Edinburgh; Dyce; Baltasound; Stornoway	27	Benbecula (02h.00m.) Port Ellen Stornoway (02h.50m.)	1	Buddon Ness; Hatston Duntuilm
	Wick; Donsbristle; West Linton;	28	Benbecula (01h.00m.)	12	Nairn
	Wolflee; Paisley; Prestwick; St. Abbs Head; Bell Rock; Alness		Stornoway(01h.50m. very bright)	15	Nairn; Benbecula; Tiree
				16	Benbecula
				19	Duntuilm; Baltasound
24	Tiree; Aberdeen; Dyce (brilliant) Alness; Benbecula; Kettins; West Linton; Leuchars (03h.-04h. very bright) Lossiemouth (02h.45m.)		AUGUST	25	Benbecula
				26	Benbecula
				29	Edinburgh
		30	Baltasound		
25	Nairn; Leuchars (02h.45m.)				
26	Tiree (19h.50m.) Edinburgh; Alness; Benbecula; Leuchars (21h.00m.) Kinloss (00h.-01h.) Eskdalemuir				DECEMBER
			SEPTEMBER		
27	Nairn; Wick; Lossiemouth (23h.00m.) Kinloss (22h.-02h.)			19	Stenness; Orkney; Nairn
		17	Edinburgh; Stornoway (23h.-03h. very bright)	21	Edinburgh
28	Aberdeen; Benbecula			25	Aberdeen; Fortrose

ABERDEEN

ABERDEEN OBSERVATORY

Latitude	57°10′N.
Longitude	2°06′W.
G.M.T. of Local Mean Noon	12h. 8m.

Heights of instruments	*above M.S.L.*	*above ground*
	m.	m.
Barometer	26·0	..
Thermometer bulbs, north-wall screen	..	12·5
Rain-gauge site	24·1	..
Dines tilting-siphon rain recorder rim	..	0·5
Sunshine recorder	..	20·7
Pressure-tube anemograph	37	13
Robinson cup anemograph	36	23

INTRODUCTION

A description of the site and instruments is given in the *Observatories' Year Book* for 1938, and no noteworthy changes have occurred.

Review of the meteorological results

The mean temperature for the year was 281·6°A., a little higher than the normal. The extremes recorded in the north-wall screen were 297·2°A. on 22 June and 265·9°A. on 17 January. The lowest reading of the grass minimum thermometer was 260·2°A. on 17 January.

The total rainfall for the year was 756 mm., that is slightly above the normal.

The sunshine total, 1228 hr., was a little below the normal.

The highest wind speed recorded in a gust was 29 m./sec. on 20 February.

The results of the harmonic analysis of the diurnal inequalities of pressure are set out in the accompanying table. Average values of the various coefficients for the period 1871-1926 computed by Dr. A. Crichton Mitchell* are given for comparison. Dr. Mitchell gave the phase angles in local apparent time and in volumes of the *Observatories' Year Book* earlier than 1935 they were so quoted; the angles have now been converted to local mean time.

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* MITCHELL, A.C.: Diurnal variation of pressure and temperature at Aberdeen 1871-1926. *Quart. J.R. met. Soc., London*, 55, 1929, p.197.

TABLE 67 - HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF ATMOSPHERIC PRESSURE

Values of c_η, α_η in the series $\sum c_\eta \sin(15nt + \alpha_\eta)$, t being local mean time reckoned in hours from midnight

	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926
	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°
January	0.38	0.09	281	169	0.31	0.23	158	146	0.19	0.13	336	348	0.06	0.05	211	211
February	0.66	0.16	192	173	0.24	0.27	147	143	0.18	0.10	352	346	0.02	0.03	114	84
March	0.10	0.16	114	156	0.32	0.29	154	147	0.05	0.05	313	330	0.04	0.03	21	27
April	0.13	0.15	50	155	0.37	0.28	150	151	0.03	0.02	233	188	0.05	0.04	340	359
May	0.20	0.10	251	136	0.23	0.24	141	145	0.05	0.06	174	166	0.03	0.02	352	333
June	0.12	0.06	59	104	0.23	0.22	137	141	0.05	0.07	142	155	0.01	0.01	18	331
July	0.36	0.09	123	135	0.23	0.21	150	142	0.05	0.07	155	155	0.02	0.01	359	339
August	0.18	0.11	96	161	0.23	0.23	152	144	0.03	0.04	150	165	0.01	0.03	338	333
September	0.22	0.12	178	147	0.20	0.29	148	151	0.03	0.03	30	346	0.05	0.05	353	345
October	0.21	0.15	248	187	0.31	0.27	161	156	0.09	0.07	346	0	0.02	0.03	16	34
November	0.36	0.13	354	201	0.21	0.23	131	159	0.13	0.10	1	4	0.02	0.01	154	186
December	0.37	0.16	139	169	0.20	0.21	162	147	0.12	0.12	348	357	0.03	0.05	181	205
Arithmetic mean	0.27				0.26				0.08				0.03			
Year	0.08	0.12	174	162	0.25	0.25	150	148	0.05	0.03	358	359	0.01	0.01	352	338
Winter	0.14	0.13	212	178	0.23	0.23	150	149	0.16	0.11	357	353	0.03	0.03	182	194
Equinox	0.06	0.14	179	162	0.30	0.28	153	151	0.04	0.03	333	345	0.04	0.04	358	6
Summer	0.11	0.09	119	139	0.23	0.22	145	143	0.04	0.06	157	159	0.02	0.02	355	334

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·61 is printed 05·61

68 ABERDEEN: h_b (height of barometer cistern above M.S.L.) = 26·0 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	26·8	18·9	21·9	80·9	77·9	78·9	12·8	07·2	10·0	22·9	18·0	20·5	16·5	15·2	15·9	87·0	81·9	*83·1*
2	30·5	26·8	29·1	86·2	*74·8*	*78·1*	13·5	11·6	12·8	18·0	15·3	16·7	17·1	14·3	15·1	90·8	81·9	85·7
3	29·4	09·2	21·5	87·0	75·9	82·0	11·6	04·7	07·0	16·9	12·0	15·0	25·7	17·1	21·7	04·3	90·8	97·0
4	09·2	94·4	02·4	84·6	76·9	81·5	15·0	06·4	10·5	12·0	05·3	08·5	25·8	24·1	24·9	04·6	93·7	00·2
5	07·3	98·6	04·1	07·1	84·6	95·9	21·3	15·0	18·2	23·9	11·7	17·3	28·5	24·9	27·3	93·7	*77·6*	83·7
6	12·8	05·2	08·6	07·1	00·6	03·4	22·1	19·7	20·9	27·0	17·7	23·7	*29·6*	28·1	*28·9*	05·7	83·7	96·1
7	12·5	04·7	08·2	03·2	90·2	95·1	19·7	08·1	15·0	17·8	07·7	12·5	28·2	25·3	26·6	13·6	05·7	09·9
8	04·8	86·2	94·7	97·2	90·8	92·3	08·1	04·8	05·7	16·6	05·7	09·1	27·2	25·9	26·7	13·6	06·8	10·9
9	94·6	*66·0*	*81·5*	11·0	97·2	06·5	09·8	05·1	06·9	28·0	16·6	22·9	27·0	23·3	25·2	06·8	00·7	04·3
10	92·1	66·8	81·6	05·9	03·1	04·6	16·9	09·8	13·2	*28·3*	18·6	*25·4*	24·3	22·9	23·7	00·7	96·1	97·6
11	91·1	83·3	86·4	18·1	04·1	11·9	17·2	10·8	15·4	18·6	05·5	09·4	23·8	16·9	21·0	07·0	99·4	02·8
12	18·3	84·4	01·2	22·5	18·1	20·9	10·8	04·9	06·9	08·6	04·2	06·0	17·1	15·9	16·5	18·6	07·0	12·9
13	36·6	18·3	29·6	28·9	22·2	25·3	13·6	07·5	11·3	13·2	08·2	10·2	16·2	12·6	14·5	22·8	18·6	21·6
14	38·9	36·6	37·9	*33·4*	28·9	*31·4*	16·1	12·6	14·1	13·2	08·6	10·5	12·6	08·9	10·1	22·3	15·4	18·7
15	*39·9*	38·0	*38·8*	33·3	22·9	30·2	23·0	16·1	19·4	11·3	06·6	08·0	10·3	07·0	08·6	15·4	08·8	12·2
16	39·0	36·3	37·5	28·0	18·9	24·0	25·8	23·0	24·7	13·7	94·3	07·5	08·3	05·8	06·9	08·8	03·3	05·7
17	36·4	28·5	33·1	27·7	16·5	22·3	23·8	11·0	17·3	15·7	*91·8*	03·2	18·6	08·3	15·1	03·3	01·7	02·4
18	28·5	17·6	21·7	17·9	10·0	15·9	11·1	06·5	08·9	24·5	15·7	19·8	23·0	18·6	21·6	02·5	00·7	01·5
19	18·9	13·5	15·7	10·0	94·3	01·6	10·6	06·0	07·5	24·6	17·5	21·0	22·3	18·0	20·1	07·3	02·0	04·2
20	22·1	18·9	21·0	10·7	90·5	00·3	10·2	97·3	02·4	20·8	18·8	19·7	18·0	10·8	13·5	17·6	07·2	10·9
21	25·4	20·7	23·4	17·4	10·7	14·8	05·5	98·8	02·9	27·7	20·4	23·5	11·4	08·0	09·1	*24·4*	17·6	22·2
22	20·7	09·0	15·1	13·4	86·1	04·5	02·6	*94·7*	*97·5*	27·6	13·7	22·5	20·2	09·5	15·0	23·5	20·5	*22·3*
23	14·4	05·8	08·9	00·8	76·6	89·3	07·0	99·2	02·6	13·7	00·1	05·8	23·1	20·2	22·1	20·5	11·9	16·4
24	14·9	03·4	09·7	07·8	00·8	04·6	07·8	05·4	06·6	00·1	96·3	98·1	21·8	18·7	20·1	11·9	06·2	08·2
25	09·3	03·7	06·8	10·4	07·7	08·8	14·0	07·4	12·1	96·5	95·5	*96·0*	18·7	12·7	16·1	09·7	05·3	08·2
26	05·8	00·7	03·6	11·6	09·4	10·9	22·3	14·0	18·2	11·3	96·3	02·5	12·7	09·5	11·1	07·1	02·7	03·9
27	06·2	01·6	04·9	09·4	01·7	04·4	24·9	21·4	22·7	14·5	11·3	13·6	09·5	02·7	05·1	09·2	99·0	05·9
28	01·6	83·3	92·9	07·2	01·1	03·4	24·7	19·2	22·6	13·8	04·1	08·7	07·8	05·2	06·5	06·4	98·9	01·8
29	84·1	78·2	82·4				22·6	17·2	18·5	12·1	03·1	06·9	07·1	05·5	06·2	07·3	99·6	04·5
30	92·6	77·7	82·5				*29·5*	22·6	*27·3*	16·5	12·1	14·5	06·3	92·9	02·2	15·9	03·3	10·2
31	99·2	80·9	94·1				28·4	22·5	24·7				93·3	*87·0*	*90·0*			
Mean	14·96	03·78	09·70	09·95	99·73	05·10	16·20	10·02	13·02	16·98	08·42	12·63	17·81	13·41	15·72	09·41	01·60	05·50

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	17·6	13·0	15·8	13·4	08·5	12·0	03·9	02·5	03·3	17·3	15·2	16·0	24·2	13·2	18·4	97·4	80·2	92·0
2	13·0	07·9	09·5	08·6	98·4	02·3	02·5	98·4	00·3	17·3	14·2	16·2	13·2	09·3	10·5	88·3	78·6	*82·9*
3	11·0	09·6	10·4	08·3	01·9	04·0	98·4	96·2	97·5	14·2	00·3	06·4	12·1	09·8	10·6	95·1	86·2	88·3
4	09·7	97·2	01·3	08·3	04·5	06·8	96·2	93·2	94·0	06·3	*99·8*	04·7	20·3	12·1	15·2	10·0	95·1	04·3
5	09·1	96·6	02·0	07·5	04·6	06·7	96·7	92·3	94·3	11·5	03·4	06·4	29·0	20·1	24·6	10·0	01·8	05·0
6	26·6	09·1	17·9	05·1	01·9	03·0	00·5	96·4	98·1	18·9	11·5	15·9	*29·1*	21·6	*26·7*	07·4	02·7	05·6
7	27·7	26·3	*27·0*	02·4	00·1	01·2	03·6	00·2	02·1	24·1	18·7	20·8	25·9	22·3	24·0	04·9	90·0	97·2
8	26·7	24·6	25·5	01·1	95·5	98·3	06·3	03·3	04·6	32·5	24·1	28·7	26·2	24·6	25·6	90·0	80·2	83·7
9	*29·1*	23·9	26·7	96·4	94·4	95·1	10·6	06·3	07·7	36·4	32·5	34·4	24·6	19·0	20·6	01·6	86·4	93·4
10	28·9	21·2	25·6	96·8	93·1	95·2	10·6	98·8	07·8	*38·4*	36·4	*37·4*	21·3	18·1	19·7	09·9	01·6	07·6
11	21·2	13·8	16·7	07·6	94·9	02·6	14·1	97·1	05·6	36·7	30·9	34·4	19·5	09·8	17·1	08·2	96·3	00·3
12	14·3	10·4	13·1	07·4	03·0	05·5	14·8	98·9	10·6	30·9	24·7	27·5	09·8	88·8	96·2	16·2	98·7	09·1
13	10·4	02·1	05·9	07·8	02·2	04·8	98·9	*86·9*	*91·9*	24·7	21·7	23·0	03·5	91·8	98·5	25·3	16·0	20·1
14	02·1	98·7	99·7	10·9	07·2	08·6	97·1	87·8	93·5	21·7	18·5	19·8	09·9	03·5	07·9	35·4	25·1	29·6
15	03·1	98·0	00·9	11·6	10·7	11·2	04·1	90·1	98·8	22·2	18·1	20·1	08·7	04·2	05·9	42·6	35·4	39·6
16	02·8	01·1	02·1	11·0	08·3	09·3	03·8	98·7	01·0	23·3	21·8	22·5	06·9	97·3	04·5	43·2	42·4	*42·7*
17	03·7	99·3	01·4	10·9	08·4	10·0	00·8	93·2	96·0	23·4	21·8	22·8	97·3	*69·3*	79·8	*43·3*	41·9	42·7
18	03·7	99·6	01·2	10·0	02·7	05·3	96·1	91·6	94·2	21·8	15·0	18·8	85·4	70·4	78·9	41·9	33·3	38·4
19	00·2	98·4	98·8	09·6	02·8	06·2	96·6	94·0	95·7	15·0	05·9	10·5	93·6	85·4	90·8	33·3	26·0	29·2
20	04·7	99·6	02·1	13·3	09·4	11·1	02·1	91·5	94·8	05·9	02·2	*03·3*	93·4	74·4	87·3	26·0	16·7	21·5
21	06·2	04·3	05·3	14·0	11·1	*13·0*	10·8	02·1	08·0	13·2	03·4	07·9	74·4	71·4	*72·8*	16·7	02·9	08·7
22	04·4	02·1	03·5	*15·4*	09·6	12·2	04·2	94·3	97·6	18·3	12·9	15·6	03·8	74·4	87·5	02·9	89·4	95·1
23	06·4	02·7	04·7	15·2	07·9	12·6	99·0	96·2	97·5	22·6	18·1	20·6	04·8	89·3	97·3	03·4	94·6	98·4
24	06·3	00·4	02·9	07·9	03·7	04·9	06·2	99·0	03·7	23·5	22·2	22·9	90·7	78·5	84·9	07·8	00·0	05·5
25	13·6	06·1	09·3	06·6	05·3	05·8	09·6	02·2	05·6	22·6	18·3	20·4	84·5	76·3	81·4	00·1	*76·1*	85·2
26	13·6	03·0	10·1	07·0	06·2	06·6	10·7	08·9	09·7	18·3	10·9	14·7	95·4	78·3	88·7	86·6	83·0	84·4
27	08·5	97·5	01·8	06·2	01·8	04·6	16·6	09·1	10·7	10·9	04·7	07·3	95·1	88·4	90·5	03·8	86·6	94·5
28	09·3	00·8	06·5	01·8	86·0	94·0	*23·1*	16·6	21·0	18·8	05·7	13·7	96·9	92·1	94·5	19·0	03·8	10·7
29	04·4	00·7	02·0	87·1	*81·5*	*83·8*	22·9	19·4	*21·3*	21·7	18·5	20·4	93·4	92·0	92·7	18·8	04·2	12·9
30	03·9	*91·7*	*97·7*	94·7	87·1	90·8	19·5	16·9	17·8	22·9	21·2	21·8	91·8	86·1	88·5	09·1	00·5	06·0
31	11·4	01·2	06·5	03·8	94·7	99·7				26·8	22·9	25·4				00·8	91·5	95·1
Mean	11·41	05·19	08·18	06·70	01·53	04·10	06·01	99·40	02·82	21·36	15·98	18·72	06·16	96·39	01·38	12·87	02·17	07·41
									Annual	12·54	04·88	08·69						

PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

69 ABERDEEN: h_b = 26 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	10·09	09·96	09·86	09·83	09·75	09·65	09·69	09·99	10·26	10·57	*10·71*	10·66	10·14	09·76	09·47	09·46	09·43	09·34	09·33	09·36	09·18	09·08	09·00	08·90	*08·86*	09·70
Feb.	04·68	04·54	04·33	04·11	04·00	03·91	*03·85*	04·12	04·48	04·86	05·18	05·43	05·39	05·37	05·29	05·37	05·63	05·79	06·04	*06·12*	06·04	05·90	05·76	05·65	05·62	05·10
Mar.	12·96	12·92	12·77	12·60	12·57	*12·56*	12·68	12·83	13·00	13·10	13·18	13·22	13·12	12·99	12·83	12·74	12·69	12·82	13·04	13·31	13·48	*13·59*	13·55	13·56	13·47	13·02
Apr.	*13·01*	12·86	12·75	12·55	12·44	12·45	12·59	12·72	12·87	12·96	12·95	12·83	12·71	12·63	12·39	12·15	*12·06*	12·08	12·23	12·46	12·78	12·92	12·92	12·89	12·79	12·63
May	*16·15*	16·01	15·84	15·69	15·60	15·64	15·83	15·88	16·01	16·07	16·08	16·07	16·05	15·96	15·89	15·67	15·47	15·38	15·31	15·39	15·47	15·48	15·46	15·35	*15·20*	15·72
June	05·31	05·31	05·12	*05·04*	*05·04*	05·09	05·17	05·35	05·45	05·48	05·54	05·58	05·54	05·49	05·44	05·43	05·35	05·40	05·48	05·62	05·83	06·09	06·21	06·26	*06·27*	05·50
July	08·73	08·52	08·33	08·06	07·96	07·89	07·99	07·98	08·04	08·00	08·02	08·01	07·96	07·94	07·98	07·98	*07·88*	08·07	08·15	08·36	08·52	08·73	*08·75*	08·66	08·59	08·18
Aug.	*04·53*	04·39	04·27	04·10	03·98	04·00	04·07	04·12	04·19	04·18	04·15	04·11	04·02	03·95	03·86	*03·77*	03·78	03·82	03·88	04·03	04·25	04·35	04·42	04·39	04·28	04·10
Sept.	02·71	02·66	02·52	02·38	02·25	*02·23*	02·36	02·48	02·70	02·82	02·84	02·86	02·92	02·89	02·91	02·86	02·86	02·91	03·04	03·21	*03·30*	03·27	03·25	03·25	03·17	02·82
Oct.	18·49	18·40	18·36	18·25	*18·17*	18·19	18·40	18·61	18·87	19·09	*19·18*	*19·18*	19·05	18·89	18·73	18·57	18·53	18·68	18·85	18·94	18·98	18·95	18·93	18·82	18·72	18·72
Nov.	02·13	*02·13*	02·07	02·00	01·85	01·83	01·73	01·75	01·95	02·01	02·02	01·93	01·62	01·26	00·99	00·77	00·71	00·70	00·72	*00·66*	00·69	00·75	00·72	00·77	00·97	01·38
Dec.	07·55	07·41	07·30	07·19	07·06	*06·90*	*06·90*	06·94	07·01	07·22	07·36	07·41	07·26	07·15	07·05	07·20	07·39	07·61	07·74	07·98	08·03	*08·06*	08·00	07·95	07·92	07·41
Annual	08·86	08·76	08·63	08·48	08·39	*08·36*	08·44	08·56	08·73	08·86	08·94	*08·95*	08·81	08·69	08·57	08·50	08·48	08·55	08·65	08·79	08·88	08·93	08·91	08·87	08·82	08·69

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

70 ABERDEEN: h_b = 26 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	13·34	13·22	13·12	13·08	13·01	12·91	12·95	13·25	13·52	13·83	*13·96*	13·91	13·38	13·00	12·71	12·70	12·67	12·59	12·58	12·61	12·43	12·32	12·25	12·15	*12·11*	12·95
Feb.	07·91	07·77	07·56	07·34	07·23	07·14	*07·08*	07·35	07·71	08·09	08·41	08·65	08·60	08·58	08·50	08·58	08·84	09·01	09·27	*09·35*	09·27	09·14	09·00	08·88	08·85	08·32
Mar.	16·21	16·17	16·03	15·86	15·83	*15·82*	15·94	16·08	16·25	16·35	16·42	16·45	16·35	16·21	16·05	15·96	15·91	16·05	16·28	16·55	16·73	*16·84*	16·80	16·82	16·72	16·26
Apr.	*16·23*	16·08	15·97	15·78	15·67	15·68	15·81	15·93	16·07	16·16	16·14	16·02	15·88	15·80	15·56	15·32	*15·23*	15·26	15·41	15·65	15·98	16·13	16·13	16·10	16·01	15·83
May	*19·38*	19·24	19·07	18·93	18·84	18·87	19·06	19·10	19·22	19·28	19·28	19·27	19·24	19·16	19·09	18·87	18·67	18·58	18·51	18·60	18·69	18·70	18·68	18·58	*18·43*	18·93
June	08·47	08·46	08·28	*08·20*	08·20	08·25	08·32	08·49	08·59	08·60	08·66	08·70	08·66	08·61	08·55	08·55	08·47	08·52	08·61	08·75	08·97	09·23	09·36	09·41	*09·43*	08·64
July	11·87	11·66	11·48	11·21	11·10	11·03	11·13	11·11	11·16	11·12	11·14	11·12	11·07	11·04	11·08	11·08	*10·98*	11·17	11·25	11·47	11·64	11·85	*11·89*	11·80	11·73	11·31
Aug.	*07·67*	07·54	07·42	07·25	07·13	07·15	07·22	07·26	07·32	07·30	07·27	07·22	07·12	07·05	06·97	*06·88*	06·89	06·93	06·99	07·14	07·37	07·48	07·55	07·53	07·42	07·23
Sept.	05·85	05·81	05·66	05·52	05·39	*05·37*	05·51	05·62	05·84	05·94	05·96	05·97	06·03	06·00	06·02	05·97	05·97	06·03	06·16	06·34	*06·43*	06·41	06·39	06·39	06·31	05·95
Oct.	21·71	21·62	21·59	21·47	*21·40*	21·41	21·63	21·84	22·10	22·31	*22·40*	22·39	22·26	22·09	21·93	21·77	21·73	21·89	22·07	22·15	22·19	22·17	22·15	22·04	21·94	21·93
Nov.	05·32	*05·32*	05·26	05·19	05·04	05·02	04·92	04·93	05·14	05·20	05·20	05·11	04·79	04·43	04·16	03·94	03·88	03·88	03·90	*03·84*	03·87	03·93	03·90	03·95	04·16	04·56
Dec.	10·79	10·65	10·54	10·43	10·30	*10·14*	10·14	10·18	10·25	10·47	10·60	10·64	10·49	10·37	10·28	10·43	10·63	10·85	10·97	11·21	11·27	*11·30*	11·24	11·19	11·16	10·65
Annual	12·06	11·96	11·83	11·69	11·59	*11·57*	11·64	11·76	11·93	12·05	12·12	*12·13*	11·99	11·86	11·74	11·67	11·65	11·73	11·83	11·97	12·07	12·12	12·11	12·07	12·02	11·88

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

71 ABERDEEN: North-wall screen on tower: h_t = 12·5 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	degrees Absolute																									
Jan.	76·36	76·27	76·14	76·06	75·97	*75·95*	76·00	76·04	75·97	75·99	76·45	77·00	77·51	77·85	*78·02*	77·75	77·40	77·11	77·05	76·86	76·79	76·82	76·75	76·53	76·40	76·69
Feb.	77·03	77·04	76·91	76·94	76·90	76·77	76·87	76·55	*76·53*	76·95	77·42	78·07	78·68	78·90	78·99	*79·04*	78·71	78·17	77·75	77·44	77·09	77·05	76·81	76·77	76·74	77·47
Mar.	77·41	77·28	77·14	76·97	76·99	*76·83*	76·83	76·94	77·45	78·17	78·87	79·22	79·66	*79·91*	79·82	79·84	79·80	79·59	79·07	78·40	78·14	77·89	77·79	77·68	77·61	78·24
Apr.	80·28	79·97	79·72	79·52	79·30	*79·19*	79·59	80·44	81·29	82·20	82·87	83·39	84·16	84·25	*84·42*	84·32	84·31	83·94	83·39	82·61	81·88	81·33	80·90	80·56	80·28	81·83
May	80·25	79·98	79·87	79·64	*79·45*	79·62	80·41	81·29	81·90	82·32	82·74	82·66	82·84	*83·00*	82·85	82·88	82·79	82·55	82·33	81·84	81·35	81·03	80·77	80·61	80·44	81·46
June	83·76	83·51	83·22	82·84	*82·79*	83·33	84·37	85·36	85·77	86·40	86·66	86·79	87·04	87·01	*87·24*	86·77	86·68	86·28	85·95	85·79	85·32	84·86	84·39	83·89	83·82	85·26
July	86·05	85·89	85·72	85·64	*85·46*	85·79	86·37	86·93	87·45	88·06	88·43	88·63	89·00	89·39	89·48	89·49	*89·52*	89·24	89·03	88·56	88·03	87·31	86·70	86·37	86·05	87·61
Aug.	84·64	84·40	84·14	83·84	*83·59*	83·65	84·18	84·90	85·79	86·71	87·17	87·68	87·98	88·07	88·09	*88·15*	88·04	87·81	87·63	87·08	86·35	85·77	85·38	84·95	84·70	86·08
Sept.	84·39	84·17	84·12	84·02	83·92	*83·79*	83·85	84·25	84·87	85·64	86·30	86·78	87·24	*87·48*	87·44	87·45	87·16	86·64	86·12	85·59	85·15	84·91	84·77	84·56	84·36	85·44
Oct.	81·69	81·59	81·48	81·28	81·19	81·16	*81·11*	81·15	81·40	82·01	82·54	82·97	83·23	83·44	*83·49*	83·41	83·24	82·94	82·62	82·35	82·20	82·03	81·90	81·75	81·61	82·17
Nov.	80·05	79·79	79·89	79·84	79·70	79·73	*79·59*	79·86	79·80	80·02	80·47	80·77	81·13	81·23	*81·32*	81·21	80·88	80·64	80·47	80·25	80·40	80·13	80·06	79·99	79·84	80·30
Dec.	77·15	77·03	76·83	76·70	76·43	76·65	*76·40*	76·45	76·53	76·67	76·95	77·49	77·89	*78·08*	78·05	77·86	77·62	77·52	77·51	77·41	77·31	77·26	77·26	77·14	77·08	77·17
Annual	80·75	80·58	80·43	80·27	*80·14*	80·21	80·46	80·85	81·23	81·76	82·24	82·62	83·03	83·22	*83·26*	83·19	83·01	82·70	82·41	82·01	81·67	81·37	81·12	80·90	80·74	81·64

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0°. Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

72 ABERDEEN: North-wall screen on tower: h_t (height of thermometer bulb above ground) = 12·5 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	degrees Absolute																	
1	78·3	75·2	77·2	80·9	77·4	79·2	76·3	69·0	72·8	81·0	76·0	78·2	82·5	76·0	79·7	85·0	81·8	83·5
2	76·0	74·2	75·2	80·3	77·6	79·0	76·8	*66·9*	*71·7*	*93·6*	77·1	85·7	84·3	78·2	81·2	86·3	79·1	83·6
3	77·7	71·5	73·8	79·9	76·3	78·4	77·1	72·2	75·5	91·9	82·0	*86·8*	84·2	77·6	81·3	87·1	82·2	84·6
4	*85·1*	77·7	*81·1*	80·0	76·3	78·3	77·8	76·5	77·2	90·7	80·9	86·0	86·1	79·9	82·2	85·7	81·4	84·0
5	82·7	78·1	79·7	81·2	75·0	77·7	77·9	76·2	77·2	83·9	77·2	80·3	80·0	76·9	78·9	88·9	83·5	85·8
6	80·9	76·2	78·5	81·5	75·9	78·3	78·5	73·9	77·0	86·9	76·3	81·6	82·2	76·7	80·3	89·8	82·2	85·8
7	78·2	74·3	77·1	83·8	77·5	80·2	77·9	73·3	74·6	89·7	82·1	85·5	86·1	78·6	82·9	88·9	81·1	84·8
8	81·1	76·7	78·8	80·2	76·3	78·6	76·5	71·0	74·3	84·7	77·6	81·0	82·3	77·0	80·5	88·2	81·6	84·7
9	81·8	76·8	80·0	80·3	74·8	77·1	78·5	74·5	76·6	81·2	73·8	*77·4*	86·1	74·8	81·2	87·8	81·9	84·6
10	81·0	76·7	79·1	83·1	79·7	81·6	80·0	74·4	77·1	82·2	*73·3*	78·6	83·1	75·9	80·6	85·1	81·1	83·2
11	81·5	77·3	79·2	81·9	76·4	79·1	77·9	75·7	77·2	87·2	79·2	84·0	83·4	80·4	81·7	85·9	80·5	83·2
12	79·2	74·3	76·7	79·0	74·9	77·1	78·3	76·3	77·3	88·1	82·4	84·8	84·6	77·5	81·2	85·6	79·7	83·2
13	76·2	71·5	74·3	84·2	78·0	81·1	77·6	74·7	76·3	85·9	79·5	83·3	81·3	74·9	78·5	85·3	79·1	82·4
14	75·4	72·4	73·8	82·7	77·3	80·6	76·3	73·3	75·1	93·2	77·4	85·5	82·3	*74·2*	*77·9*	84·1	*77·6*	*81·9*
15	74·7	71·3	72·8	82·8	74·2	79·1	75·2	72·4	74·5	89·9	82·2	85·9	82·2	75·7	78·6	85·0	79·4	82·7
16	75·2	67·5	72·1	*84·6*	78·2	81·0	76·8	74·1	75·7	84·1	78·9	82·1	82·7	77·6	79·8	86·9	81·2	84·4
17	78·2	*65·9*	*72·0*	84·4	78·2	81·5	79·0	74·7	76·3	84·0	76·8	81·5	82·3	78·0	80·6	87·7	83·0	84·3
18	78·4	76·9	77·7	83·8	81·1	*82·4*	84·0	78·9	81·1	84·7	74·0	79·7	82·5	79·8	81·2	86·7	81·0	83·8
19	79·1	74·7	77·7	82·3	74·0	79·0	86·0	81·3	83·5	86·7	76·9	82·5	85·0	78·7	81·6	87·5	81·7	84·2
20	78·2	74·3	75·4	78·3	73·9	75·6	84·1	79·7	81·3	85·3	79·4	82·5	82·0	78·9	80·7	88·6	81·1	85·0
21	78·1	73·7	76·1	75·8	72·9	74·0	84·6	76·3	80·7	82·5	78·0	80·1	84·4	79·8	81·6	89·6	83·2	86·1
22	78·6	76·3	77·6	77·5	74·0	75·5	81·9	76·0	78·8	87·4	77·4	82·7	86·6	79·7	83·7	*97·2*	85·1	90·8
23	76·9	72·9	75·4	78·0	72·0	74·9	82·5	75·7	78·3	84·8	77·6	81·7	85·2	78·4	82·2	96·4	88·1	*92·3*
24	80·1	71·8	76·2	74·9	70·8	72·3	83·2	75·4	79·2	84·8	76·4	80·2	85·2	81·4	83·2	92·9	84·2	88·8
25	80·7	77·4	79·5	73·9	69·8	71·7	85·9	80·2	82·7	80·8	76·3	79·0	85·2	79·9	82·2	88·9	81·8	85·9
26	79·1	75·0	77·2	74·5	69·1	*71·6*	*88·1*	82·1	*84·5*	81·1	78·0	79·6	85·0	82·0	83·3	89·0	85·4	86·5
27	77·6	72·4	74·8	74·4	*68·7*	71·8	87·1	79·5	83·3	81·1	78·6	80·1	84·9	82·0	83·3	88·9	83·4	86·5
28	79·9	75·7	77·8	75·8	69·1	72·4	86·2	76·5	81·9	80·2	77·1	79·0	86·3	81·8	83·9	91·1	83·6	87·2
29	80·2	75·0	77·1				86·7	80·3	82·7	81·5	76·4	79·7	86·2	81·8	83·1	87·9	83·2	85·6
30	80·0	75·8	77·2				83·5	78·4	81·4	81·4	77·1	79·8	86·5	81·6	83·2	92·0	84·6	88·2
31	79·2	72·6	76·4				83·7	77·2	79·5				*88·6*	82·9	*85·0*			
Mean	79·0	74·3	76·7	80·0	75·0	77·5	80·8	75·7	78·2	85·3	77·9	81·8	84·2	78·7	81·5	88·3	82·1	85·3

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	degrees Absolute																	
1	94·6	*82·5*	88·4	89·7	83·5	87·1	87·3	85·0	86·3	86·3	83·1	84·9	82·7	80·1	81·5	80·0	74·5	77·2
2	94·2	85·0	90·0	*93·4*	85·1	88·1	88·1	82·8	85·8	86·0	83·8	85·2	81·5	75·4	79·7	80·0	75·8	78·2
3	91·1	82·9	87·8	91·8	84·0	88·2	88·2	80·1	85·0	*87·9*	84·7	*85·9*	84·6	73·9	80·6	78·9	73·2	76·3
4	90·3	85·0	87·0	91·9	82·1	86·4	87·9	85·7	86·7	85·8	81·1	83·5	*88·4*	84·3	86·2	79·4	75·8	77·6
5	90·1	84·8	87·2	92·9	86·3	*89·1*	86·9	86·0	86·5	85·5	81·6	83·5	88·2	86·1	*87·0*	78·0	73·0	76·0
6	89·1	84·4	86·5	92·4	86·2	88·8	89·3	84·0	86·6	83·8	77·5	81·5	88·0	84·3	86·3	78·4	72·9	76·3
7	93·8	83·9	88·5	92·1	84·1	88·0	89·1	84·1	86·4	85·0	75·9	81·4	84·3	79·4	81·3	80·2	*71·4*	76·9
8	93·1	85·6	88·8	89·7	84·0	86·9	88·1	82·6	85·3	86·1	82·8	84·3	80·8	78·7	79·5	80·3	77·8	79·2
9	89·4	86·6	87·7	90·0	82·9	86·3	89·0	82·4	85·6	85·0	82·9	84·1	81·9	79·0	80·7	79·8	76·1	78·0
10	89·7	85·9	87·4	87·6	80·1	84·7	88·3	82·9	85·3	84·9	78·4	81·8	82·6	79·0	81·1	80·8	76·1	77·9
11	*97·1*	84·0	90·9	91·7	83·3	86·9	88·0	82·1	85·3	83·4	77·2	80·6	82·2	79·8	80·7	80·9	79·7	80·3
12	95·3	87·8	*91·1*	87·4	82·6	84·9	86·3	80·7	84·5	83·0	81·8	82·4	84·9	78·9	81·5	80·0	72·2	76·7
13	93·1	84·4	88·8	89·0	84·0	85·7	88·3	82·2	84·9	83·2	81·1	82·2	79·0	75·1	77·2	76·2	*71·4*	*74·0*
14	88·4	83·3	85·6	87·4	82·6	84·8	88·3	83·0	85·3	81·0	79·7	80·6	78·1	73·2	74·8	80·8	72·1	77·0
15	87·0	82·9	*84·9*	86·8	81·0	*83·9*	89·1	81·3	85·3	82·4	80·6	81·4	76·9	*73·0*	*74·7*	79·1	77·2	77·8
16	87·0	83·0	85·4	87·1	81·7	84·5	87·1	83·0	84·9	82·3	80·6	81·3	80·4	75·6	77·7	77·8	75·7	76·8
17	87·7	84·8	86·2	87·5	82·3	84·8	87·9	83·1	85·3	82·6	79·7	81·2	81·6	79·8	80·8	77·2	75·9	76·5
18	87·3	85·3	86·3	87·1	82·4	85·3	86·9	81·2	83·6	83·6	82·4	83·0	82·0	80·3	81·1	77·0	72·0	74·4
19	88·0	85·6	86·3	86·2	82·1	84·8	87·6	79·9	83·7	84·7	82·5	83·7	81·0	79·3	80·3	78·7	77·0	77·7
20	89·2	85·0	87·0	88·0	80·1	84·7	87·0	*78·7*	*83·1*	84·9	83·8	84·4	82·8	79·0	80·0	78·2	74·8	76·5
21	89·5	84·4	87·1	88·7	83·3	85·9	86·8	81·5	84·4	84·3	82·7	83·8	82·8	79·0	81·3	80·0	75·5	77·8
22	90·9	84·4	87·7	89·6	80·4	86·7	*91·9*	82·4	86·6	83·0	79·7	81·8	79·9	74·9	78·0	*82·6*	79·2	*81·0*
23	95·2	87·0	90·5	88·3	*78·6*	84·6	87·4	80·5	83·8	83·8	78·7	81·5	83·6	74·0	79·3	79·3	74·7	77·2
24	93·6	86·6	90·0	89·9	85·6	87·6	88·1	81·1	84·1	83·5	80·5	81·7	83·8	80·0	82·0	75·8	72·7	74·2
25	93·1	84·8	88·8	88·0	83·6	86·0	89·5	83·4	86·8	82·1	81·3	81·7	82·9	80·7	81·8	81·6	75·8	78·6
26	91·0	86·0	87·8	87·9	80·4	84·3	89·6	86·2	87·4	82·5	80·5	81·9	81·1	77·6	79·7	78·1	74·0	76·4
27	90·8	84·6	87·2	90·0	82·0	85·7	91·0	86·4	*88·4*	81·8	78·1	80·1	81·4	77·3	80·2	79·4	73·2	76·9
28	91·1	84·5	86·9	87·1	78·7	84·6	90·2	84·3	86·3	79·9	76·1	*78·3*	82·0	75·1	78·6	80·1	77·0	78·4
29	88·2	84·2	86·5	87·7	85·0	86·3	85·3	83·7	84·7	82·9	75·2	78·8	80·0	74·4	78·1	79·4	73·8	76·6
30	89·2	83·0	85·3	88·8	84·9	86·4	85·7	84·8	85·3	82·2	*73·4*	78·6	78·9	74·7	77·3	79·7	75·7	77·7
31	88·8	84·3	86·5	87·7	85·4	86·5				83·7	80·2	82·3				79·4	74·1	76·3
Mean	90·9	84·7	87·6	89·1	82·8	86·1	88·1	82·8	85·4	83·8	80·2	82·2	83·8	80·2	80·3	79·3	74·8	77·2
									Annual	84·3	78·9	81·6						

MEAN RELATIVE HUMIDITY AND VAPOUR PRESSURE FOR EACH DAY

Mean percentages from readings at exact hours 0h. to 24h., G.M.T.; vapour pressure from daily mean temperature and relative humidity

73 ABERDEEN: North-wall screen on tower; h_t = 12·5 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.
	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.
1	73·4	6·1	75·9	7·2	69·0	*4·2*	*95·5*	8·5	77·8	7·6	80·7	10·2	68·1	11·9	71·5	11·5	94·7	14·5	*99·3*	13·8	75·1	8·3	81·4	6·7
2	72·7	5·2	79·6	7·4	77·6	4·3	67·3	9·9	71·5	7·8	81·5	10·4	74·7	14·5	74·6	12·8	86·4	12·8	98·1	13·9	85·5	8·4	73·4	6·5
3	80·5	5·2	83·2	7·5	78·9	5·8	63·3	*10·0*	82·9	9·1	72·5	9·9	68·6	11·6	67·7	11·7	87·3	12·2	94·1	*14·0*	92·6	9·7	78·6	6·1
4	82·4	*8·9*	70·2	6·3	85·3	7·0	64·9	9·7	80·1	9·3	81·5	10·7	88·1	14·1	82·9	12·7	95·5	15·0	72·3	9·2	91·1	13·8	84·6	7·2
5	70·4	6·9	80·5	6·9	78·9	6·5	*53·9*	*5·5*	64·4	*6·0*	73·7	10·9	69·4	11·2	84·3	*15·4*	*97·3*	*15·1*	73·8	9·4	91·0	*14·5*	88·0	6·7
6	78·1	7·1	81·4	7·3	68·8	5·6	54·4	6·1	74·8	7·7	53·6	7·9	72·4	11·2	81·3	14·6	90·0	14·0	75·5	8·4	90·4	13·8	79·5	6·2
7	83·5	6·8	73·1	7·4	86·4	5·9	64·5	9·4	74·0	9·0	66·6	9·2	74·1	13·1	*65·7*	11·2	84·4	13·0	77·4	8·5	81·6	8·9	76·9	6·2
8	81·1	7·5	72·0	6·6	79·2	5·3	58·0	6·2	74·4	7·7	79·0	10·9	83·6	15·0	70·6	11·2	90·0	12·9	82·0	11·0	79·0	7·6	77·9	7·4
9	83·7	8·4	74·5	6·1	83·6	6·6	68·9	5·8	*63·2*	6·9	85·0	11·6	77·5	13·0	71·2	10·9	68·3	10·0	71·0	9·4	*74·8*	7·9	83·8	7·3
10	73·6	6·9	*63·1*	7·1	75·4	6·2	62·9	5·7	79·9	8·3	90·6	11·3	80·7	13·2	78·5	10·8	77·3	11·1	86·0	9·7	78·5	8·5	88·0	7·6
11	79·4	7·5	75·9	7·1	74·2	6·1	64·8	8·5	73·9	8·3	75·7	9·4	71·4	14·6	71·9	11·4	86·9	12·4	84·6	8·8	81·1	8·5	78·8	8·1
12	78·0	6·2	76·4	6·3	83·7	7·0	65·0	9·0	68·0	7·4	78·7	9·8	69·5	14·4	*93·5*	13·0	88·6	12·0	82·0	9·7	75·1	8·3	83·5	6·7
13	78·2	5·2	*86·6*	*9·4*	72·8	5·6	73·4	9·2	74·1	6·7	75·7	8·9	79·2	14·2	81·5	12·0	76·9	10·7	78·4	9·1	79·5	6·6	*90·2*	5·9
14	70·6	*4·5*	78·6	8·2	69·1	4·9	66·6	9·7	74·5	6·4	68·4	*7·8*	78·6	11·5	84·0	11·6	78·7	11·3	76·1	8·0	82·5	*5·7*	86·4	7·0
15	76·9	4·6	81·4	7·7	64·6	4·4	62·8	9·3	69·1	6·3	67·2	8·1	79·1	*11·0*	73·8	*9·6*	65·2	9·3	76·1	8·4	87·1	6·0	*61·4*	*5·3*
16	80·7	4·6	71·5	7·7	*61·3*	4·5	72·0	8·3	77·7	7·7	80·9	10·9	91·7	13·2	78·4	10·6	72·4	10·1	74·6	8·2	90·6	7·7	66·6	5·3
17	81·6	4·6	68·3	7·6	83·8	6·5	68·9	7·6	81·6	8·5	*91·2*	12·2	90·5	13·7	82·3	11·4	71·4	10·2	66·6	7·2	84·5	8·9	81·2	6·4
18	66·5	5·7	77·2	9·1	91·3	9·9	68·7	6·7	84·9	9·2	80·1	10·4	*93·7*	14·3	77·7	11·1	77·8	9·9	69·5	8·5	86·2	9·3	85·5	5·8
19	75·5	6·5	70·0	6·5	78·1	9·9	63·8	7·6	78·6	8·8	74·3	9·9	93·3	14·2	87·6	12·1	*60·9*	*7·8*	75·7	9·7	83·0	8·5	87·4	7·5
20	*90·9*	6·6	76·4	5·6	84·2	9·2	62·7	7·4	89·4	9·4	71·4	10·0	86·9	13·9	79·7	11·0	68·1	8·4	86·4	11·6	80·3	8·0	80·0	6·3
21	80·1	6·1	74·1	4·9	67·0	7·0	66·7	6·7	93·3	10·4	71·1	10·7	76·0	12·2	90·6	13·5	72·0	9·7	81·7	10·6	88·2	9·7	83·8	7·2
22	73·8	6·3	82·9	6·1	81·4	7·5	69·1	8·3	76·6	9·9	75·8	*15·5*	81·0	13·6	74·6	11·7	72·1	11·3	78·0	8·8	76·1	6·6	81·8	*8·8*
23	83·6	6·1	80·5	5·6	69·9	6·2	56·8	6·4	86·6	10·1	67·1	15·0	82·1	*16·4*	81·2	11·1	62·0	8·1	84·6	9·4	83·7	8·0	76·4	6·3
24	83·5	6·4	79·5	4·6	68·2	6·5	54·8	5·6	83·0	10·3	73·9	13·3	67·9	13·2	87·4	14·5	66·9	8·8	76·3	8·6	89·5	10·3	80·6	5·4
25	88·4	8·6	72·7	4·0	67·0	8·1	76·9	7·2	82·7	9·6	70·9	10·5	*63·9*	11·5	87·4	13·1	79·7	12·6	*55·1*	*6·2*	85·5	9·7	84·1	7·7
26	90·5	7·5	68·7	3·7	81·3	*11·0*	91·0	8·9	93·2	11·7	85·9	13·3	80·1	13·5	90·9	12·2	88·0	14·4	58·8	6·7	84·6	8·3	78·0	6·1
27	83·5	5·8	67·3	*3·7*	77·1	9·7	80·4	8·1	92·6	11·6	77·6	12·0	84·4	13·7	79·3	11·6	85·8	15·0	73·0	7·4	87·9	8·9	78·8	6·4
28	83·2	7·2	78·7	4·6	74·2	8·5	64·6	6·0	93·1	*12·1*	64·4	10·4	81·2	12·9	92·3	12·6	95·7	14·6	71·5	6·4	93·4	8·5	80·1	7·2
29	70·5	5·8			80·9	9·7	77·5	7·6	95·8	11·8	80·3	11·7	73·8	11·4	92·0	14·1	95·4	13·1	78·5	7·2	*97·1*	8·6	85·4	6·8
30	*61·7*	5·1			91·7	10·1	75·7	7·5	*97·3*	12·1	*50·7*	8·8	85·6	12·2	88·6	13·6	94·1	13·5	82·0	7·5	88·7	7·4	77·6	6·6
31	76·8	6·0			*93·7*	9·1			81·3	11·4			75·0	11·6	92·0	14·2			78·0	9·1			84·6	6·6
Mean*	78·5	6·3	75·7	6·5	77·4	7·1	67·9	7·7	80·3	9·0	74·9	10·7	78·8	13·1	81·1	12·2	81·0	11·8	78·0	9·2	84·8	8·8	80·8	6·7

* Mean of the column.

RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

74 ABERDEEN: h_t = 12·5 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	per cent.																									
Jan.	79·3	78·9	79·2	79·9	80·1	81·3	*81·5*	80·9	79·9	79·6	78·0	75·9	74·5	74·6	*74·3*	75·6	76·3	77·8	78·6	79·2	79·8	79·5	79·3	79·8	79·7	78·5
Feb.	78·5	77·9	77·0	77·1	76·8	79·0	78·7	*80·3*	80·3	79·7	78·0	74·4	71·3	69·0	69·3	*68·9*	70·6	72·5	74·5	75·9	76·8	76·1	77·4	77·8	77·7	75·7
Mar.	80·2	80·6	80·9	80·6	80·9	*81·5*	81·2	80·2	79·3	77·3	75·0	74·0	72·3	71·9	71·7	*71·3*	72·2	72·1	75·5	78·8	79·4	79·9	80·3	79·7	81·0	77·4
Apr.	74·6	75·8	*75·9*	75·0	75·1	75·1	75·3	72·5	69·5	65·7	63·5	61·6	58·1	58·9	*57·0*	58·5	58·4	60·7	63·1	66·2	69·2	71·6	73·2	74·4	74·2	67·9
May	84·9	86·0	86·6	87·2	87·4	*87·5*	85·2	81·7	79·3	77·2	74·8	76·9	74·5	*72·9*	73·5	73·3	*72·9*	74·4	75·7	79·0	82·2	84·0	85·3	85·1	85·2	80·3
June	81·2	81·9	82·9	*83·9*	83·7	82·5	78·1	74·1	71·1	68·0	67·6	67·6	*66·5*	68·4	67·2	69·4	70·7	71·9	73·1	73·5	75·8	77·7	79·3	81·3	80·1	74·9
July	84·7	85·8	86·1	85·9	*87·0*	85·4	84·1	81·8	79·5	76·4	74·9	75·1	74·2	71·6	*71·3*	71·9	*71·3*	72·8	73·2	74·4	76·6	79·0	82·7	84·5	85·5	78·8
Aug.	87·1	86·9	87·1	87·8	*88·7*	88·6	87·1	84·4	81·7	78·0	76·2	74·4	74·5	74·6	73·4	*72·8*	73·8	75·4	76·3	78·6	82·3	85·4	85·7	86·4	87·4	81·1
Sept.	85·3	*86·5*	85·7	86·1	86·2	86·4	86·5	85·0	83·4	81·0	78·2	75·4	72·4	*71·3*	71·6	71·6	73·8	75·8	78·7	82·4	84·1	85·4	85·2	85·7	85·4	81·0
Oct.	80·3	80·5	80·7	81·0	81·5	81·9	*82·8*	82·0	81·2	78·8	77·5	76·0	74·6	73·2	73·4	*72·9*	74·0	74·3	75·8	77·4	77·3	78·3	77·7	78·5	79·1	78·0
Nov.	85·0	85·7	85·1	84·5	85·4	85·7	85·3	84·5	86·0	*86·9*	84·1	83·1	*82·1*	82·6	82·5	82·8	83·5	85·0	85·1	85·5	84·8	86·6	86·6	86·8	85·6	84·8
Dec.	82·6	82·7	82·8	82·2	*83·4*	82·1	82·6	82·3	81·3	80·7	79·9	79·5	77·5	*77·4*	77·9	78·9	79·2	79·6	79·3	79·8	80·5	81·2	82·1	83·4	82·6	80·8
Annual	82·0	82·4	82·5	82·6	83·0	*83·1*	82·4	80·8	79·4	77·4	75·6	74·5	72·7	72·2	*71·9*	72·3	73·1	74·4	75·7	77·6	79·1	80·4	81·2	82·0	82·0	78·3

VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T., computed from corresponding mean values of temperature and relative humidity

75 ABERDEEN: h_t = 12·5 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	millibars																									
Jan.	6·2	6·1	6·1	6·1	6·1	6·1	6·2	6·1	6·0	*6·0*	6·1	6·2	6·3	6·4	*6·5*	6·5	6·4	6·4	6·4	6·4	6·4	6·4	6·3	6·3	6·2	6·2
Feb.	6·3	6·3	6·2	6·2	*6·2*	6·3	6·3	6·3	6·3	6·5	*6·5*	6·5	6·5	6·4	6·5	6·5	6·5	6·4	6·4	6·4	6·3	6·2	6·2	6·2	6·2	6·4
Mar.	6·9	6·7	6·6	6·5	6·6	6·5	6·5	*6·5*	6·7	6·8	6·9	7·0	7·1	*7·2*	7·1	7·1	7·1	7·0	7·1	7·1	7·0	6·9	6·9	6·8	6·9	6·9
Apr.	7·6	7·6	7·5	7·3	7·2	*7·1*	7·3	7·5	7·6	7·6	7·7	7·8	7·7	7·9	7·7	7·8	7·8	7·9	*8·0*	7·9	7·9	7·9	7·8	7·7	7·6	7·7
May	8·7	8·6	8·6	8·5	*8·4*	8·5	8·8	8·9	9·0	9·1	9·0	*9·2*	9·1	9·0	8·9	8·9	8·8	8·9	8·9	9·0	9·0	9·0	9·0	8·9	8·8	8·9
June	10·4	10·4	10·3	10·2	*10·1*	10·4	10·5	10·6	10·5	10·5	10·6	10·7	10·7	10·9	10·9	11·0	*11·1*	11·0	10·9	10·9	10·9	10·8	10·7	10·6	10·4	10·7
July	13·0	12·8	12·7	*12·6*	12·6	12·6	12·9	13·0	13·1	13·1	13·1	13·3	13·5	13·4	13·4	*13·5*	13·4	13·5	13·3	13·2	13·1	12·9	13·0	13·0	12·9	13·1
Aug.	11·9	11·7	11·5	11·4	*11·3*	11·4	11·6	11·7	12·1	12·2	12·3	12·4	12·7	*12·8*	12·6	12·5	12·6	12·7	12·7	12·6	12·6	12·6	12·3	12·1	12·0	12·2
Sept.	11·6	11·5	11·3	11·3	11·3	*11·2*	11·2	11·4	11·6	11·8	11·9	11·9	11·8	11·8	11·8	11·8	11·9	11·8	11·9	*12·0*	11·9	11·9	11·8	11·7	11·5	11·7
Oct.	9·0	9·0	9·0	8·9	8·9	8·9	9·0	8·9	9·0	9·1	9·2	*9·3*	9·3	9·3	9·3	9·2	9·2	9·1	9·1	9·1	9·0	9·0	8·9	8·9	*8·9*	9·1
Nov.	8·6	8·5	8·5	8·4	8·4	8·4	*8·3*	8·4	8·5	8·7	8·7	8·8	8·9	9·0	*9·1*	9·0	8·9	8·9	8·8	8·7	8·7	8·8	8·7	8·7	8·5	8·7
Dec.	6·7	6·7	6·7	6·6	6·5	6·5	6·4	6·4	*6·4*	6·4	6·5	6·7	6·7	6·8	6·8	6·8	6·7	6·7	6·7	6·7	6·7	6·7	6·8	*6·8*	6·8	6·6
Annual	8·6	8·6	8·5	8·4	*8·4*	8·4	8·5	8·6	8·7	8·8	8·8	8·9	8·9	*9·0*	9·0	9·0	9·0	9·0	8·9	8·9	8·9	8·9	8·8	8·7	8·6	8·8

* Mean of values, 1,2,.....23, ½(0 + 24).

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

76 ABERDEEN: h_r (height of receiving surface above M.S.L.) = height of station above M.S.L. + height of receiving surface above ground = 24·1 m. + 0·6 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6·7	3·6	11
2	...	...	...	1 6	1 5	6	...	...	...	...	...	...	...	...	...	1·0	0·9	12
3	0·8	0·6	9	0·7	0·4	12	*6·5*	8·6	11	...	...	...	...	...	...	1·3	1·3	18
4	...	...	...	...	...	...	3·7	*9·2*	1	...	...	...	0·2	0·1	8	0·2	0·1	2
5	...	...	...	0·2	0·4	1	0·6	1·0	1	...	...	...	0·2	0·3	2	2·4	2·3	24
6	...	...	...	4·1	2·9	*14*	...	...	...	...	...	...	...	...	...	0·1	0·1	3
7	...	...	...	...	...	...	4·7	2·9	8	1·5	1·7	4	...	...	...	...	...	...
8	1·6	1·0	4	0·5	0·5	4	1·6	2·1	4	0·6	0·5	6	...	...	...	1·2	1·6	5
9	3·3	6·0	2	2·1	2·4	10	0·4	0·4	2	0·4	0·4	6	...	...	...	0·8	3·3	2
10	0·1	0·1	1	...	...	...	...	...	...	...	...	...	...	...	...	10·0	*13·6*	20
11	...	...	...	0·2	1·9	...	0·5	0·4	3	0·4	0·7	4	...	...	...	2·4	0·8	15
12	0·6	1·1	2	...	...	...	4·3	8·4	7	0·2	0·2	6	0·5	0·2	13	2·0	0·9	34
13	0·3	0·4	(2)	0·2	0·3	2	0·5	1·7	2	0·8	1·5	2	0·7	0·8	3	0·8	1·1	2
14	...	...	...	...	...	...	1·3	1·4	6	...	...	...	0·8	0·5	5	...	...	...
15	...	...	...	...	...	...	0·5	0·6	2	...	...	...	4·8	2·5	13	...	...	...
16	...	...	...	0·8	1·1	9	...	...	...	0·8	0·7	2	3·3	2·0	17	0·5	2·5	1
17	...	...	...	...	...	...	3·4	3·2	3	0·3	0·4	1	2·9	1·4	48	8·5	10·4	4
18	...	...	...	...	...	...	...	...	...	0·2	0·2	2	0·2	0·3	4	*14·9*	1·9	62
19	2·2	2·5	11	2·5	2·5	3	...	...	...	...	...	...	0·6	0·6	2	3·5	1·5	18
20	*7·0*	*9·9*	10	2·9	3·1	6	0·3	1·1	1	...	...	...	0·4	1·1	1	4·3	0·6	*99*
21	...	...	...	0·4	0·7	1	...	...	...	1·0	0·7	*10*	4·8	2·7	8	...	...	...
22	...	...	...	*9·1*	*11·8*	3	5·8	2·1	*35*	0·2	0·4	3	...	...	...	...	...	...
23	2·6	3·3	3	4·6	5·8	4	1·2	1·0	2	0·5	0·6	2	...	...	...	...	...	...
24	0·1	0·2	...	5·6	4·6	5	...	...	...	...	...	...	...	...	...	...	...	...
25	2·8	5·6	11	...	...	...	0·7	1·4	3	0·5	2·8	1	0·5	0·5	8	...	...	...
26	3·1	7·2	3	...	...	...	0·7	1·9	1	*2·0*	*6·8*	3	8·1	2·8	30	7·7	1·9	34
27	...	...	...	...	...	...	...	...	...	...	...	...	3·9	2·9	22	0·2	0·3	1
28	0·3	0·3	8	0·6	1·1	1	...	...	...	...	...	...	1·9	0·5	48	0·5	0·2	38
29	...	...	...				...	...	...	0·1	0·1	5	...	...	...	1·9	3·0	1
30	...	...	...				...	...	...	...	...	...	*22·2*	*6·8*	*54*	...	...	...
31	3·5	1·6	*18*				...	...	...				6·8	5·0	16			
Total	28·3	39·8	-	36·1	41·0	-	36·7	47·4	-	9·5	17·7	-	62·8	31·0	-	70·9	51·9	-

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	...	...	...	...	...	...	...	...	...	1·7	*4·1*	...	1·6	1·2	9	5·6	3·3	8
2	...	...	...	2·7	1·9	12	4·8	1·6	31	*2·9*	1·8	16	1·0	0·6	2	1·3	1·1	5
3	...	...	...	0·8	0·2	27	0·6	1·1	1	0·6	1·6	2	...	...	...	1·9	1·2	10
4	*25·1*	5·3	*82*	2·8	2·3	5	*13·2*	*9·8*	*44*	1·7	2·9	6	...	...	...	0·1	0·2	2
5	...	...	...	0·4	0·7	1	9·7	4·7	34	0·1	0·1	5	...	...	...	7·0	6·4	7
6	0·8	1·5	5	2·6	1·4	8	1·1	0·4	40	...	...	...	6·9	1·3	25	...	...	...
7	...	...	...	...	...	...	0·1	0·5	...	...	...	...	2·2	1·8	15	2·9	0·7	27
8	...	...	...	...	...	...	10·3	4·5	28	...	...	...	0·8	1·4	2	9·8	4·0	*30*
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8·9	4·7	22
10	...	...	...	...	...	...	6·6	4·6	13	...	...	...	0·1	0·1	...	5·2	1·9	17
11	...	...	...	3·2	1·6	23	10·7	5·7	14	...	...	...	0·1	0·2	...	*13·9*	*9·4*	10
12	0·1	0·3	1	*14·8*	*10·2*	*49*	6·3	3·8	15	...	...	...	3·6	2·0	48	0·7	1·4	2
13	10·1	4·8	12	5·8	6·6	6	9·7	5·5	39	...	...	...	3·2	2·9	9	0·7	0·5	5
14	10·4	*11·9*	20	7·6	3·1	24	6·0	4·1	5	...	...	...	0·1	0·2	...	3·3	3·4	14
15	0·3	1·7	1	0·1	0·1	1	...	...	...	...	...	...	4·8	3·8	7	...	...	...
16	2·7	5·3	7	3·2	1·7	7	...	...	...	...	...	...	10·4	7·5	15	0·2	0·1	1
17	8·1	2·8	12	...	...	...	...	...	...	...	...	...	13·3	*10·6*	29	0·1	0·1	...
18	9·2	3·8	36	...	...	...	1·8	0·6	28	...	...	...	14·0	9·9	47	...	...	...
19	8·6	2·9	68	7·8	7·0	13	...	...	...	...	...	...	8·0	8·0	21	1·1	2·2	1
20	9·9	4·7	17	...	...	...	...	...	...	...	...	...	*20·7*	8·7	26	...	...	...
21	...	...	...	...	...	...	0·8	1·1	4	0·1	0·2	...	4·2	2·6	7	0·5	1·0	1
22	1·8	1·1	12	0·5	0·2	15	3·5	2·9	10	...	...	...	0·1	0·3	...	...	...	...
23	...	...	...	...	...	...	...	...	...	2·5	2·2	10	4·0	6·4	4	...	...	...
24	...	...	...	...	...	...	...	...	...	2·1	0·6	*102*	5·6	2·2	*68*	...	...	...
25	...	...	...	...	...	...	...	...	...	...	...	...	14·2	6·6	25	3·2	5·8	5
26	0·5	1·5	12	...	...	...	0·3	0·7	...	...	...	...	...	...	...	...	...	...
27	6·7	2·9	58	...	...	...	...	...	...	...	...	...	16·2	8·4	42	...	...	...
28	2·1	2·5	52	12·0	4·7	23	...	...	...	2·1	1·1	11	12·5	8·5	8	0·8	0·7	6
29	2·9	1·0	52	11·8	3·8	40	0·4	0·6	...	...	...	...	...	...	...	...	...	...
30	3·7	2·6	9	0·1	0·1	...	6·4	6·1	9	...	...	...	4·3	4·2	3	...	...	...
31	1·1	0·6	7	...	...	...				0·6	0·5	2				5·5	5·2	5
Total	104·1	57·2	-	76·2	45·6	-	92·3	58·3	-	14·4	15·1	-	151·9	99·4	-	72·7	53·3	-

RAINFALL

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

77 ABERDEEN: h_r = 24·1 m. + 0·6 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	millimetres																								
Jan.	0·6	0·9	0·8	0·7	2·1	2·5	2·2	0·6	0·5	0·4	0·9	1·2	1·3	1·9	1·4	0·2	0·9	0·5	1·5	1·7	0·8	0·3	1·6	*2·8*	28·3
Feb.	0·6	0·2	0·7	0·5	2·7	1·2	1·6	1·2	*4·3*	4·0	2·8	0·7	0·6	1·1	0·7	0·3	0·9	0·7	1·5	2·3	1·1	2·8	2·2	1·4	36·1
Mar.	0·9	0·5	0·9	0·9	1·0	1·3	0·4	2·4	1·6	0·5	1·2	1·9	0·9	1·5	1·6	2·7	2·3	*5·4*	1·7	1·8	1·6	1·9	0·9	0·9	36·7
Apr.	0·1	0·7	0·3	0·1	0·1	0·3	0·4	0·5	0·7	0·7	0·4	0·5	0·7	0·1	···	0·3	0·7	0·4	*1·4*	0·1	···	0·3	0·6	0·1	9·5
May	3·7	0·8	1·4	1·0	4·4	5·1	6·6	2·3	3·6	1·9	1·6	0·9	···	0·5	0·2	0·1	···	0·6	···	0·8	1·5	4·6	10·0	*11·2*	62·8
June	0·6	0·8	2·2	3·8	3·3	0·9	1·1	2·0	1·0	0·6	5·9	5·5	3·3	3·7	*12·5*	5·2	9·1	4·7	1·0	0·4	1·0	1·5	0·2	0·6	70·9
July	2·1	1·5	2·1	1·4	3·1	8·2	*16·5*	9·8	4·0	3·9	4·4	6·0	3·4	2·1	1·1	5·4	1·7	1·7	4·5	1·5	6·1	3·6	3·1	6·9	104·1
Aug.	2·3	1·6	9·0	1·8	4·3	2·1	3·4	2·6	2·7	1·6	0·9	4·2	5·7	*9·9*	4·0	7·7	0·8	2·3	1·5	2·4	0·8	1·0	1·4	2·2	76·2
Sept.	3·1	1·3	4·8	3·9	7·8	5·0	2·1	0·9	4·0	3·4	3·0	0·2	3·5	2·8	1·8	7·3	3·6	3·3	3·5	*8·6*	6·3	4·0	3·8	4·3	92·3
Oct.	1·5	*3·0*	0·8	0·2	0·7	0·9	0·5	1·6	0·2	0·5	0·2	···	0·1	···	···	···	···	1·8	0·4	1·3	0·6	0·1	···	···	14·4
Nov.	4·6	6·1	6·1	6·0	2·7	4·5	0·8	0·8	2·1	5·8	6·1	3·5	4·7	8·5	6·2	12·4	6·8	7·1	11·2	8·8	9·1	*12·7*	6·5	8·8	151·9
Dec.	1·2	3·5	0·9	4·9	3·2	3·5	2·4	3·8	0·6	1·6	2·0	3·1	1·0	2·0	1·8	2·7	3·3	*7·0*	4·4	4·6	5·1	5·5	1·8	2·8	72·7
Annual	21·3	*20·9*	30·0	25·2	35·4	35·5	38·0	28·5	25·3	24·9	29·4	27·7	25·2	34·1	31·3	*44·3*	30·1	35·5	32·6	34·3	34·0	38·3	32·1	42·0	755·9

RAINFALL

Monthly and annual totals of durations in sixty-minute periods between exact hours, G.M.T.

78 ABERDEEN: h_r = 24·1 m. + 0·6 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	hours																								
Jan.	1·0	1·2	1·3	1·4	3·3	*3·4*	2·8	1·9	1·5	1·0	1·5	1·3	0·9	2·0	1·5	0·5	0·8	1·5	2·3	2·0	2·0	1·0	2·0	1·7	39·8
Feb.	1·0	0·2	1·1	0·5	2·7	2·0	2·5	1·7	2·9	2·9	2·9	1·0	1·2	1·6	1·7	0·4	1·4	1·3	1·7	2·0	1·6	2·6	1·9	2·2	41·0
Mar.	1·6	1·1	1·3	1·8	2·3	2·5	1·5	2·6	2·6	2·0	2·5	2·4	2·6	0·8	2·3	*3·2*	2·3	1·8	2·8	1·9	2·0	1·2	1·0	1·3	47·4
Apr.	1·0	1·2	0·6	0·1	0·1	0·4	0·3	0·6	0·8	0·6	0·7	0·9	1·3	0·1	···	0·5	1·3	0·8	2·2	1·0	···	1·0	1·2	1·0	17·7
May	1·1	1·0	2·0	1·8	2·7	*3·1*	2·0	2·1	2·2	1·3	0·9	0·6	···	0·6	0·5	0·1	···	0·6	···	0·6	1·0	1·7	2·4	2·7	31·0
June	1·9	1·8	2·7	2·9	3·2	1·0	1·0	2·0	1·8	1·3	1·1	2·6	2·0	3·1	3·4	2·7	*3·8*	2·6	1·6	0·5	2·8	3·5	1·4	1·2	51·9
July	2·1	2·5	2·7	1·5	2·8	3·2	4·0	2·9	2·5	1·9	2·7	2·7	1·4	0·9	0·8	1·9	1·7	0·7	2·4	2·1	2·7	*4·1*	3·4	3·6	57·2
Aug.	2·2	1·3	1·7	2·5	2·6	1·9	2·3	2·8	2·7	1·9	0·8	1·9	2·3	2·6	2·2	*3·1*	0·9	1·4	1·7	1·6	1·0	1·0	1·5	1·7	45·6
Sept.	2·6	1·7	3·0	3·0	3·5	2·0	1·5	2·2	2·5	1·3	1·2	0·3	0·5	1·9	1·6	2·0	1·9	3·1	3·5	*4·9*	3·7	2·5	3·4	4·5	58·3
Oct.	1·4	*1·9*	1·6	0·4	1·0	0·9	1·3	0·9	0·3	1·1	0·6	···	0·1	···	···	···	···	0·5	0·3	1·1	1·3	0·4	···	···	15·1
Nov.	2·8	4·0	3·8	2·8	1·8	3·0	2·0	1·2	2·6	4·1	4·8	3·7	3·8	5·5	5·6	5·3	4·8	4·9	5·8	5·6	5·8	*7·6*	4·9	3·2	99·4
Dec.	0·8	1·5	1·4	2·4	3·0	1·7	1·8	2·1	0·2	1·8	2·4	2·5	1·5	1·8	1·7	1·6	2·1	3·7	3·6	3·3	4·0	*4·7*	2·3	1·4	53·3
Annual	19·5	19·4	23·2	21·1	29·0	25·1	23·0	23·0	22·6	21·2	22·1	19·9	*17·6*	20·9	21·3	21·3	21·0	22·9	27·9	26·6	27·9	*31·3*	25·4	24·5	557·7

NOTES ON RAINFALL

79 ABERDEEN

Dry Periods

The following definitions are adopted by the British Rainfall Organization
An "absolute drought" is a period of at least 15 consecutive days to none of which is credited 0·2 mm. of rain or more
A "partial drought" is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0·2 mm.
A "dry spell" is a period of at least 15 consecutive days to none of which is credited 1·0 mm. of rain or more
"Absolute drought": October 5–22
"Partial drought": No occasions
"Dry spells": April 27–May 14; October 5–22

Wet Periods

The following definitions are adopted by the British Rainfall Organization
A "rain spell" is a period of at least 15 consecutive days to each of which is credited 0·2 mm. of rain or more
A "wet spell" is a period of at least 15 consecutive days to each of which is credited 1·0 mm. of rain or more
"Rain spells": No occasions
"wet spells": No occasions

Rainfall Duration

Hours	0·1–1·0	1·1–2·0	2·1–6·0	6·1–12·0	>12·0
Number of days	73	45	62	26	1

Continuous or Heavy Falls

On the night of May 30–31 a fall of 25 mm. was recorded: of this amount, 14 mm. fell in 2hr. On July 4, 22 mm. fell in 3hr. 30m.

Heavy Falls in short periods

On July 4, 3 mm. fell in 2m.

Rate of Rainfall (Jardi recorder)

The highest instantaneous rate of rainfall was 102 mm./hr. on October 24.

80 ABERDEEN: h_s (height of recorder above ground) + 20·7 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible
	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%
1	···	···	3·2	39	7·5	71	2·9	22	0·5	3	5·5	32	11·1	63	5·5	34	1·8	13	···	···	0·1	1	3·8	54
2	···	···	0·3	4	6·7	63	6·3	48	2·4	15	3·3	19	4·0	23	7·3	45	3·3	24	···	···	1·1	12	···	···
3	···	···	0·2	2	···	···	6·1	46	0·1	1	6·8	39	*12·4*	70	9·3	58	6·9	50	0·8	7	···	···	3·3	47
4	···	···	···	···	···	···	5·1	38	0·3	2	0·5	3	4·1	23	1·9	12	0·1	1	3·4	30	3·2	36	3·5	50
5	2·4	35	6·0	70	···	···	9·1	68	1·4	9	6·2	35	2·6	15	7·1	44	···	···	1·7	15	···	···	···	···
6	3·6	52	2·2	25	5·8	53	7·0	52	8·1	51	9·4	53	4·7	27	3·4	21	4·0	30	1·8	16	0·5	6	*5·2*	*75*
7	2·8	41	4·1	47	5·1	46	2·6	19	8·6	54	4·3	24	1·9	11	*11·8*	*75*	6·8	50	3·0	27	3·0	35	0·4	6
8	0·1	1	···	···	5·3	48	6·4	47	14·3	*90*	4·3	24	2·4	14	8·6	55	0·4	3	5·0	45	0·1	1	0·1	1
9	···	···	6·2	70	2·7	24	4·7	34	14·0	87	6·5	37	6·1	35	7·5	48	7·0	53	5·4	50	···	···	···	···
10	*5·9*	*84*	4·4	49	8·5	*75*	0·1	1	7·9	49	1·0	6	1·0	6	6·0	38	1·7	13	9·2	85	0·7	8	···	···
11	0·7	10	···	···	···	···	0·1	1	2·3	14	4·7	27	12·3	*71*	7·5	48	1·9	15	*9·5*	*89*	3·1	37	···	···
12	3·8	54	···	···	0·1	1	2·8	20	7·0	43	5·9	33	4·6	26	0·0	0	0·9	7	···	···	1·5	18	4·7	70
13	1·0	14	···	···	···	···	1·2	9	4·0	25	6·0	34	0·5	3	6·2	40	4·6	35	···	···	3·0	37	···	···
14	4·8	67	1·4	15	0·8	7	*13·1*	*93*	10·5	64	4·9	28	5·4	31	1·3	8	2·4	19	···	···	*5·8*	*72*	···	···
15	4·1	56	7·4	79	2·9	25	10·3	73	7·7	47	3·5	20	10·5	61	8·1	53	8·9	70	···	···	2·7	34	···	···
16	3·0	41	2·1	22	1·0	9	7·2	50	5·9	36	1·6	9	0·0	0	2·2	14	0·9	7	···	···	···	···	···	···
17	···	···	3·7	39	···	···	3·4	24	6·2	38	0·3	2	2·6	15	3·1	21	7·2	57	···	···	···	···	···	···
18	···	···	0·5	5	···	···	7·0	49	8·5	51	2·6	15	4·0	23	1·0	7	3·3	26	···	···	···	···	···	···
19	···	···	3·8	39	2·3	19	6·7	46	12·3	74	4·1	23	0·5	3	0·5	3	8·7	70	···	···	···	···	···	···
20	···	···	2·1	21	0·5	4	0·2	1	···	···	1·4	8	1·2	7	3·0	20	7·7	62	···	···	···	···	2·1	3·2
21	3·6	47	4·7	47	*8·6*	71	7·2	49	1·4	8	6·6	37	1·2	7	1·8	12	0·1	1	···	···	2·7	35	···	···
22	···	···	···	···	2·1	17	1·0	7	13·5	80	*11·1*	*62*	1·4	8	3·5	24	6·9	56	···	···	1·4	18	···	···
23	···	···	2·3	23	3·7	30	4·7	32	7·8	46	9·2	52	7·0	42	7·6	52	*10·7*	*88*	···	···	···	···	···	···
24	···	···	4·7	47	2·7	22	6·6	44	*14·8*	87	3·9	22	10·3	62	1·4	10	3·7	31	2·0	21	2·0	27	1·2	18
25	0·2	3	8·9	87	0·3	2	6·0	40	10·1	59	5·6	31	9·9	59	2·1	14	5·5	46	···	···	···	···	···	···
26	···	···	*9·2*	*89*	1·5	12	···	···	4·6	27	0·5	3	2·4	14	8·6	60	0·5	4	···	···	0·6	8	4·7	71
27	5·8	73	8·9	86	8·4	67	···	···	···	···	4·4	25	1·2	7	6·8	48	1·3	11	1·7	18	···	···	4·9	74
28	···	···	7·6	73	5·7	45	1·4	9	8·3	48	9·0	51	2·7	16	0·8	6	4·2	36	0·4	4	···	···	1·9	29
29	4·3	53			1·4	11	1·4	9	2·9	17	1·6	9	4·7	29	0·7	5	0·6	5	6·1	66	···	···	···	···
30	3·6	44			···	···	1·3	8	0·5	3	10·8	61	1·7	10	4·3	30	···	···	4·9	53	···	···	2·1	32
31	2·7	33			7·2	55			9·3	54			2·8	17	3·1	22			2·5	27			0·1	1
Mean	1·69	23	3·35	36	2·93	25	4·40	31	6·30	38	4·85	27	4·43	26	4·58	30	3·73	29	1·85	18	1·05	13	1·23	18
											Annual mean		3·36											

DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

81 ABERDEEN: h_s = 20·7 m.

	Hour L.A.T. 3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total	per cent. of possible
	hours																			%
Jan.	–	–	–	–	···	0·8	5·5	8·6	*11·9*	10·9	9·8	4·8	0·1	···	–	–	–	–	52·4	23
Feb.	–	–	–	···	2·1	6·7	10·1	13·1	*14·1*	11·9	12·7	12·2	8·3	2·7	···	–	–	–	93·9	36
Mar.	–	–	···	0·4	3·9	7·1	9·8	10·9	11·5	*12·9*	10·5	10·5	7·4	4·8	1·1	···	–	–	90·8	25
Apr.	–	···	3·1	9·4	10·6	12·8	11·3	*15·1*	13·5	12·5	12·1	11·5	8·0	5·8	4·8	1·4	···	–	131·9	31
May	···	1·9	11·3	12·7	12·8	14·4	15·5	13·0	15·9	*17·4*	16·5	17·3	14·7	12·2	9·4	7·6	2·6	···	195·2	38
June	0·5	5·7	9·4	11·2	12·1	*13·6*	11·8	11·7	7·3	8·9	11·1	8·6	9·8	8·7	5·4	6·1	3·0	0·6	145·5	27
July	0·1	3·7	5·2	5·3	6·3	6·9	9·6	11·1	12·6	*13·9*	11·4	12·7	11·4	9·2	7·8	5·9	3·9	0·2	137·2	26
Aug.	···	1·6	5·9	7·9	10·2	*12·6*	10·9	10·5	12·2	12·4	11·4	11·4	*12·6*	9·6	7·7	4·2	0·9	···	142·0	30
Sept.	–	–	···	3·5	6·9	6·9	9·4	11·9	12·1	12·1	*13·6*	13·0	10·6	8·5	3·5	···	–	–	112·0	29
Oct.	–	–	–	0·1	2·5	4·3	7·2	6·6	8·2	*8·4*	7·5	6·1	4·6	1·8	0·1	–	–	–	57·4	18
Nov.	–	–	–	–	···	···	3·1	*6·8*	*6·8*	5·5	5·1	3·1	1·1	···	–	–	–	–	31·5	13
Dec.	–	–	–	–	–	···	2·1	8·5	*8·6*	8·3	7·5	3·0	···	–	–	–	–	–	38·0	18
Annual	0·6	12·9	34·9	50·5	67·4	86·1	106·3	127·8	134·7	*135·1*	129·2	114·2	88·6	63·3	39·8	25·2	10·4	0·8	1227·8	27

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

82 ABERDEEN: h_a (height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 24 m. + 13 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust
	metres per second																							
1	4·6	14	5·4	20	1·9	7	*1·0*	7	1·4	6	3·3	12	3·1	12	2·2	8	1·8	6	1·1	5	3·7	14	2·4	17
2	2·7	11	4·7	18	1·7	6	1·6	9	1·6	7	1·7	8	3·5	16	3·9	17	1·5	5	2·4	9	1·2	11	5·4	*23*
3	5·4	23	2·9	14	4·1	14	2·3	10	0·6	5	3·6	14	2·1	9	3·5	15	2·5	12	2·3	8	2·0	10	3·5	14
4	6·7	22	2·7	13	4·4	13	3·9	17	2·5	10	3·5	16	3·0	14	2·2	11	4·8	13	2·8	14	3·2	15	5·0	13
5	3·1	13	2·6	13	3·0	13	4·9	20	5·0	17	*7·0*	*23*	3·4	14	2·7	10	3·7	14	4·2	13	1·8	9	1·8	9
6	2·7	11	2·6	14	2·2	11	3·4	13	2·9	11	5·0	16	4·5	*19*	2·9	12	1·7	8	3·1	13	1·1	11	2·2	8
7	1·8	9	5·0	24	2·9	9	4·2	19	3·7	16	2·3	10	1·3	6	3·4	12	2·0	8	2·4	9	5·3	17	3·5	17
8	6·0	*25*	5·9	23	1·9	9	*7·0*	24	2·4	9	2·3	10	*0·6*	5	3·1	12	1·0	7	2·9	10	4·8	18	6·3	21
9	6·4	21	5·8	22	2·7	9	4·8	17	2·2	7	1·9	9	1·6	9	2·3	11	3·2	13	2·1	7	4·7	15	2·7	12
10	2·5	15	6·4	21	2·7	11	2·6	11	1·5	6	2·3	12	1·8	11	2·6	9	2·6	11	2·3	6	5·1	15	2·2	14
11	2·9	18	5·3	21	3·9	15	5·4	19	3·2	12	1·5	7	1·9	13	2·7	14	3·6	13	4·5	11	2·8	10	7·7	22
12	3·6	15	2·2	7	6·1	*19*	2·7	14	4·0	14	1·7	7	2·4	13	2·1	10	3·2	15	2·9	9	3·6	18	1·0	5
13	2·0	12	*0·5*	5	*7·0*	18	1·3	8	4·0	14	2·5	11	1·9	9	*5·2*	16	4·3	16	2·6	10	5·1	*21*	1·4	4
14	3·7	14	1·2	6	4·6	15	2·2	10	4·7	18	2·1	8	3·6	12	1·5	7	3·9	13	2·9	9	2·9	11	3·4	15
15	4·3	13	1·4	9	3·8	11	4·3	15	*6·2*	17	1·5	5	2·4	9	2·5	10	4·3	17	2·8	8	3·3	7	6·8	17
16	1·4	12	6·0	21	3·6	13	3·6	18	4·6	15	2·8	10	2·5	11	1·3	7	4·8	17	1·6	5	1·7	10	2·8	13
17	*1·1*	7	4·6	15	4·7	16	5·8	*25*	3·9	13	*1·1*	7	4·2	17	1·7	7	*5·2*	*20*	1·8	7	5·5	19	*0·6*	4
18	6·0	19	4·2	15	3·3	15	3·3	17	3·1	11	1·7	7	2·6	8	3·2	13	2·9	10	3·9	11	5·1	17	1·1	5
19	4·4	16	6·5	23	5·1	18	3·5	15	3·5	14	2·6	9	1·3	7	1·4	9	3·1	14	3·5	10	5·5	15	3·0	8
20	1·5	10	*9·4*	*29*	2·7	10	2·1	9	2·1	9	3·2	11	1·3	9	1·1	7	3·9	14	2·8	7	*7·0*	19	2·9	11
21	3·7	19	8·0	21	2·3	15	4·7	19	1·6	7	3·1	13	3·0	10	2·2	7	2·8	13	1·9	7	3·3	13	5·2	16
22	*8·3*	21	3·9	18	1·4	13	2·2	12	2·6	12	1·3	7	2·2	10	1·7	9	5·0	18	1·4	8	3·8	14	5·0	20
23	3·6	19	7·3	25	2·5	13	4·2	15	1·5	7	3·0	14	4·0	14	2·5	9	4·4	16	1·2	8	4·8	16	1·5	5
24	5·5	21	6·2	18	2·8	12	2·6	12	2·0	8	3·2	16	*4·6*	18	2·7	10	2·7	10	2·3	13	3·3	18	1·8	10
25	2·4	13	4·0	11	3·3	11	2·1	9	2·8	11	2·6	11	3·4	11	*0·8*	4	3·8	18	*5·3*	15	4·3	17	4·9	16
26	1·1	7	3·8	11	*0·7*	7	4·0	13	2·1	7	2·3	11	2·4	11	1·0	5	3·8	13	3·8	13	2·7	13	3·7	15
27	1·6	10	3·5	11	0·7	6	3·7	13	2·5	9	3·7	15	2·4	11	1·8	7	2·8	11	3·2	13	2·7	12	2·4	10
28	4·2	20	3·2	15	2·0	11	1·9	6	2·4	13	4·6	17	2·8	13	3·7	*20*	*0·7*	4	3·6	*17*	2·4	15	3·1	18
29	2·7	14			1·7	9	2·2	7	2·1	8	3·8	17	2·5	11	2·9	16	2·0	7	*0·9*	4	*0·9*	5	3·7	15
30	3·8	16			1·7	6	2·2	9	*0·5*	5	3·5	12	2·7	12	2·2	9	3·3	10	1·3	8	1·6	9	2·6	12
31	3·2	18			1·1	5			3·6	13			3·1	12	2·2	8			1·3	7			3·6	19

WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

83 ABERDEEN: h_a = 24 m. + 13 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	metres per second																								
Jan.	3·2	*3·0*	3·3	3·1	3·3	3·3	3·5	3·4	3·7	3·5	3·9	4·0	4·3	*4·5*	4·3	3·8	4·1	4·0	3·7	3·7	3·7	3·6	3·4	3·3	3·6
Feb.	4·1	4·2	4·9	4·6	4·5	4·5	4·7	4·6	4·6	4·9	4·9	*5·2*	5·2	5·1	5·0	4·8	4·1	3·8	*3·8*	3·8	3·9	4·0	4·0	3·9	4·5
Mar.	2·8	2·9	2·8	2·7	2·6	2·6	*2·3*	2·5	3·0	3·4	3·6	3·8	3·7	*3·8*	3·7	3·5	3·2	3·0	2·7	2·7	2·5	2·5	2·5	2·6	3·0
Apr.	2·4	2·3	*2·2*	2·5	2·3	2·3	2·5	3·1	3·7	4·2	4·5	*4·7*	4·5	4·5	4·5	4·5	4·3	4·1	3·4	2·9	2·7	2·7	2·5	2·3	3·3
May	*1·8*	1·8	2·0	2·1	2·1	2·2	2·5	2·9	3·1	3·3	3·5	3·5	3·7	*3·8*	3·6	3·8	3·7	3·4	3·2	2·7	2·3	2·1	2·2	2·0	2·8
June	1·9	*1·6*	1·9	1·8	1·7	1·8	2·3	3·0	3·4	3·7	3·8	3·8	3·7	*4·0*	4·0	3·8	3·9	3·6	3·3	2·6	2·2	2·2	1·9	1·9	2·8
July	1·7	1·7	1·7	*1·6*	1·7	1·9	2·5	2·9	3·2	3·3	3·6	*3·8*	3·8	3·6	3·5	3·6	3·5	3·1	2·7	2·5	2·3	2·2	1·8	1·6	2·7
Aug.	1·5	1·7	1·8	1·9	1·8	1·9	2·1	2·5	2·9	3·1	3·1	3·3	3·5	*3·6*	3·5	3·4	3·2	2·7	2·3	2·0	1·8	1·6	1·5	*1·4*	2·4
Sept.	2·7	2·6	2·9	2·9	2·8	*2·5*	2·9	2·8	3·0	3·5	3·8	4·2	*4·3*	4·2	4·0	3·7	3·5	2·9	2·7	2·6	2·7	3·0	3·0	2·8	3·2
Oct.	2·4	2·4	2·5	2·3	2·4	2·3	2·4	2·7	2·8	2·8	3·2	3·3	*3·3*	3·2	3·0	2·8	2·5	2·3	2·4	2·5	2·5	2·4	2·3	*2·3*	2·6
Nov.	3·2	3·0	3·0	3·0	*3·0*	3·2	3·3	3·5	3·8	3·9	4·2	*4·2*	4·2	4·1	3·9	3·9	3·7	3·6	3·3	3·2	3·0	3·0	3·1	3·3	3·5
Dec.	3·0	*2·8*	3·0	2·9	3·1	3·0	2·9	3·1	3·1	3·5	3·8	4·0	*4·0*	3·9	3·9	3·6	3·6	3·5	3·3	3·3	3·2	3·1	3·1	2·9	3·3
Annual	2·5	*2·5*	2·7	2·6	2·6	2·6	2·8	3·1	3·3	3·6	3·8	4·0	4·0	*4·0*	3·9	3·8	3·6	3·3	3·1	2·9	2·7	2·7	2·6	2·5	3·1

DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

84 ABERDEEN: h_a = 24 m. + 13 m.

	DISTRUBTION OF WIND SPEED								EXTREME VELOCITIES				
	More than 17·1 m./sec.		10·8 to 17·1 m./sec.		5·5 to 10·7 m./sec.	1·6 to 5·4 m./sec.	Less than 1·6 m./sec.	No record	Highest hourly wind			Highest gust	
	Dates of occurrence	Duration	No. of days	Duration	Duration	Duration	Duration	Duration	Veer from N.	Speed	Hour ended	Speed	Date
		hr.		hr.	hr.	hr.	hr.	hr.	°	m./sec.	day h.	m./sec.	day h. m.
Jan.	-	0	2	3	168	401	172	0	170	12	8 13	25	8 13 15
Feb.	-	0	4	8	215	343	106	0	320	14	20 07	29	20 06 05
Mar.	-	0	-	0	80	466	198	0	130	09	13 02	19	12 21 45
Apr.	-	0	2	5	115	448	152	0	310	13	17 08	25	17 07 15
May	-	0	-	0	62	484	198	0	320	08	15 16	18	14 13 05
June	-	0	-	0	75	445	200	0	190) 210)	10	5 14) 19)	23	5 13 00
July	-	0	-	0	46	484	214	0	300	10	6 13	19	6 11 40
Aug.	-	0	-	0	35	458	251	0	100	09	28 16	20	28 15 40
Sept.	-	0	-	0	77	497	146	0	210	09	17 08	20	17 07 30
Oct.	-	0	-	0	28	539	177	0	150) 320)	06	(25 12 (28 1	17	28 06 00
Nov.	-	0	-	0	156	407	157	0	160	09	17 12	21	13 07 40
Dec.	-	0	-	0	161	352	231	0	150	10	11 12	23	2 11 00
Year	-	0	8	16	1218	5324	2202	0	320	14	Feb. 20 07	29	Feb. 20 06 05

TEMPERATURE IN THE GROUND AT DEPTHS OF 30 CM. (1ft.) AND 122 CM.(4ft.) AT 9h., G.M.T.

85 ABERDEEN

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.
	degrees Absolute																							
1	76·9	79·7	75·2	77·4	74·9	77·5	80·7	78·7	81·3	80·8	85·4	83·0	86·9	85·1	87·8	86·7	87·3	86·5	85·8	85·5	81·0	83·1	78·4	80·9
2	76·7	79·5	75·7	77·4	74·7	77·4	80·3	78·9	81·1	80·8	85·1	83·1	87·4	85·1	87·8	86·7	87·5	86·5	85·8	85·5	81·1	83·0	78·0	80·9
3	76·4	79·4	75·8	77·4	74·7	77·5	80·9	79·1	81·4	80·8	85·2	83·1	87·5	85·2	87·9	86·6	87·3	86·4	85·8	85·5	80·7	83·0	77·9	80·8
4	76·3	79·3	76·1	77·4	74·5	77·3	81·3	79·1	81·9	80·8	85·1	83·3	87·6	85·3	87·9	86·7	87·5	86·5	85·7	85·5	80·9	82·9	77·5	80·7
5	77·0	79·2	75·8	77·4	74·5	77·3	81·4	79·2	81·9	80·9	85·1	83·3	87·1	85·4	87·6	86·7	87·3	86·5	85·1	85·5	82·0	82·9	77·1	80·5
6	77·0	79·1	75·7	77·4	74·6	77·1	80·5	79·5	81·7	80·9	84·9	83·5	87·1	85·5	88·4	86·7	87·1	86·5	84·6	85·5	82·6	82·8	77·0	80·3
7	76·7	79·0	75·8	77·4	75·1	77·0	80·8	79·5	82·0	80·9	84·9	83·4	86·9	85·5	88·5	86·5	87·0	86·5	84·1	85·4	83·0	82·9	76·5	80·2
8	76·4	79·0	76·1	77·4	75·1	76·9	81·2	79·7	82·6	81·1	84·9	83·5	87·4	85·5	88·4	86·5	87·0	86·5	83·9	85·3	82·4	82·9	76·8	80·1
9	76·7	79·0	76·1	77·4	75·1	76·9	80·7	79·7	82·5	81·1	85·1	83·5	87·9	85·5	88·1	86·7	87·0	86·5	84·1	85·2	81·7	82·9	77·2	79·9
10	77·3	79·0	76·1	77·4	75·3	76·9	80·0	79·8	82·8	81·2	85·1	83·5	88·1	85·6	87·9	86·8	86·9	86·5	84·0	85·1	81·5	82·9	77·4	79·7
11	76·9	78·9	76·2	77·4	75·5	76·9	79·9	79·8	83·4	81·3	85·5	83·7	88·2	85·7	87·9	86·8	86·8	86·4	83·6	85·1	81·3	82·9	77·5	79·7
12	76·9	78·9	76·7	77·5	75·8	76·9	80·4	79·9	83·1	81·4	85·3	83·7	88·7	85·8	87·9	86·8	86·4	86·3	83·5	84·9	81·2	82·8	77·9	79·5
13	76·5	78·8	76·6	77·5	76·1	76·8	81·1	79·9	82·7	81·4	85·5	83·8	88·9	85·8	87·4	86·8	86·3	86·4	83·5	84·7	80·9	82·9	77·1	79·5
14	76·0	78·8	77·4	77·6	75·8	76·9	81·2	79·9	82·1	81·5	85·2	83·9	88·5	85·9	87·2	86·8	86·1	86·4	83·5	84·7	80·2	82·7	76·3	79·5
15	75·6	78·7	77·2	77·6	75·7	76·9	82·0	80·1	82·0	81·6	85·3	83·9	88·1	86·1	87·1	86·7	85·9	86·4	83·1	84·7	79·2	82·5	76·4	79·5
16	75·3	78·6	77·2	77·7	75·5	77·0	82·1	80·1	81·9	81·5	85·5	83·9	88·3	86·1	86·9	86·6	85·8	86·3	82·9	84·5	78·5	82·5	76·5	79·3
17	75·1	78·5	77·4	77·9	75·5	76·9	82·0	80·3	82·0	81·6	85·7	83·9	87·9	86·2	86·9	86·6	85·5	86·1	82·9	84·6	79·1	82·1	76·5	79·1
18	74·9	78·4	78·0	77·9	75·9	76·9	81·3	80·3	82·5	81·7	85·7	84·1	87·5	86·2	86·9	86·6	85·4	86·1	82·8	84·4	79·6	81·9	76·4	79·1
19	74·8	78·2	78·2	77·9	76·9	77·0	81·0	80·5	83·1	81·7	85·8	84·1	88·0	86·3	86·7	86·5	85·2	86·1	82·9	84·2	79·9	81·7	75·9	79·1
20	74·7	78·1	77·8	78·0	77·6	77·0	81·1	80·5	83·4	81·7	85·8	84·1	88·1	86·3	86·6	86·5	84·8	85·9	83·0	84·1	79·9	81·7	76·5	79·1
21	74·7	78·0	77·0	78·0	77·8	77·3	81·3	80·5	83·0	81·9	85·9	84·1	88·0	86·3	86·9	86·5	84·5	85·9	83·2	84·1	80·1	81·5	76·1	78·9
22	74·6	77·9	76·3	78·1	77·6	77·4	80·9	80·6	83·4	81·9	86·1	84·3	87·9	86·3	87·1	86·4	84·7	85·8	83·1	84·1	80·1	81·5	76·7	78·9
23	74·7	77·8	76·3	78·0	77·8	77·4	81·3	80·6	83·7	81·9	87·5	84·4	88·3	86·3	86·9	86·5	84·9	85·7	82·9	84·1	79·4	81·5	76·7	78·7
24	74·7	77·7	76·0	78·0	77·3	77·5	81·1	80·7	84·0	82·0	87·9	84·4	88·8	86·5	86·9	86·5	84·5	85·5	82·9	84·1	79·5	81·5	76·7	78·7
25	74·8	77·6	75·7	78·0	77·5	77·7	80·9	80·6	84·9	82·0	87·6	84·6	88·9	86·5	87·2	86·4	84·5	85·5	82·5	84·1	79·7	81·4	75·9	78·8
26	75·6	77·5	75·3	77·9	78·4	77·6	81·4	80·6	84·5	82·1	87·2	84·7	88·5	86·5	87·5	86·5	85·1	85·5	82·1	84·0	80·1	81·3	76·3	78·7
27	75·7	77·5	75·1	77·9	79·6	77·8	81·2	80·7	84·8	82·4	87·0	84·8	88·5	86·6	87·5	86·4	85·4	85·4	81·9	83·8	79·7	81·2	75·9	78·6
28	75·3	77·5	75·0	77·7	79·9	78·0	81·1	80·8	84·6	82·5	87·1	84·9	88·3	86·7	87·5	86·5	85·8	85·4	81·4	83·7	79·5	81·3	75·8	78·5
29	75·3	77·5			80·0	78·0	81·0	80·7	85·3	82·6	86·9	85·1	88·2	86·7	86·9	86·5	86·1	85·3	81·2	84·1	79·1	81·2	75·7	78·5
30	75·2	77·4			80·3	78·4	81·4	80·7	85·3	82·7	86·9	85·1	87·9	86·7	87·0	86·5	85·9	85·4	80·6	83·5	78·9	81·0	75·8	78·5
31	75·2	77·4			80·3	77·9			85·2	82·9			87·7	86·7	87·1	86·4			80·5	83·5			75·8	78·5
Mean	75·8	78·4	76·4	77·7	76·6	77·3	81·1	80·0	83·0	81·6	85·9	84·0	88·0	86·0	87·4	86·6	86·1	86·1	83·3	84·6	80·4	82·2	76·7	79·4
											Year		81·7	82·0										

MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 18h. TO 7h., G.M.T.

86 ABERDEEN

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
	degrees Absolute											
1	72·6	73·6	65·3	76·3	72·4	81·5	*75·3*	78·5	84·1	85·1	76·6	68·1
2	72·4	74·5	*63·8*	73·6	75·0	73·0	85·5	78·4	81·3	83·5	75·1	72·2
3	68·4	69·1	69·2	74·5	71·4	80·3	76·5	82·5	77·5	84·9	69·1	66·9
4	73·1	72·4	73·4	76·3	74·0	75·1	84·3	76·3	85·0	76·2	82·1	72·5
5	72·6	67·5	74·9	69·0	76·5	82·4	80·9	83·2	86·0	80·5	84·1	67·5
6	73·0	69·6	72·5	71·9	74·1	79·6	79·1	81·9	79·6	78·0	82·5	69·1
7	69·4	70·7	68·8	78·6	75·9	75·9	79·1	79·6	79·1	71·7	77·9	65·9
8	70·3	74·1	68·0	77·5	73·6	75·8	80·2	80·3	80·2	76·9	75·3	74·8
9	72·0	72·4	70·9	72·9	*70·2*	79·0	82·5	78·9	77·1	77·5	76·3	74·1
10	72·1	75·4	69·5	69·1	71·9	81·9	84·5	75·2	78·6	74·2	75·7	72·9
11	69·4	78·2	71·2	77·5	80·2	76·3	78·4	80·5	83·9	73·8	77·5	76·9
12	70·8	71·5	74·5	78·5	75·6	*72·9*	83·1	79·1	75·3	80·5	76·8	70·8
13	68·2	74·8	74·6	77·0	74·1	75·9	84·9	83·5	78·8	80·6	73·5	*65·3*
14	65·1	73·0	71·9	72·5	71·4	74·3	83·3	80·1	80·5	79·1	68·2	67·5
15	67·8	68·6	70·4	78·1	72·0	75·7	80·2	78·5	77·0	79·3	68·2	75·8
16	63·6	73·1	70·2	70·3	75·8	73·5	81·1	76·2	80·3	79·1	72·5	73·9
17	*60·2*	75·9	72·5	79·7	75·1	82·1	81·9	81·9	79·9	78·2	76·5	73·5
18	73·0	79·7	74·9	*67·8*	78·0	75·3	82·3	74·5	*-	79·5	77·5	66·2
19	75·5	75·8	80·8	70·9	75·8	78·9	85·1	82·1	*73·1*	81·1	78·5	71·9
20	70·4	72·3	73·5	76·3	76·4	77·7	84·1	*74·1*	73·9	81·5	77·1	71·8
21	69·9	70·6	71·0	70·3	79·7	81·0	82·8	81·7	75·0	82·9	78·1	71·2
22	74·8	69·9	69·9	71·9	75·2	83·5	79·7	84·5	82·3	74·7	*72·9*	75·9
23	74·5	73·0	70·9	74·7	73·1	82·7	85·7	75·4	76·3	72·9	*66·6*	72·2
24	65·4	69·6	70·4	70·5	75·8	84·6	85·7	84·1	74·3	74·6	72·5	65·9
25	74·1	66·0	75·4	71·0	74·2	76·9	79·1	79·1	79·7	78·1	76·9	68·0
26	75·9	*64·5*	79·1	77·2	81·0	83·5	81·9	78·5	83·5	79·4	75·5	71·7
27	66·3	66·0	79·1	78·4	82·7	80·0	84·5	77·7	84·1	74·7	71·3	66·5
28	70·1	64·6	71·8	74·9	81·9	80·7	79·5	75·1	79·3	73·5	69·1	71·8
29	68·0		74·9	74·4	83·0	79·1	79·0	84·0	83·5	69·9	72·1	66·9
30	71·8		78·5	74·7	81·7	79·5	78·9	82·3	79·3	*69·7*	69·1	69·1
31	65·1		76·4		82·7		81·9	82·1		78·5		71·1
Mean	70·2	71·7	72·5	74·2	76·1	78·6	81·6	79·7	†79·6	77·7	74·8	70·6
						Year	74·8					

* Spirit column broken. † Mean of 29 days

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0

The minimum "on the grass" refers to the interval from 18h. on the previous day to 7h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

ESKDALEMUIR

ESKDALEMUIR OBSERVATORY

Latitude	55°19′N.
Longitude	3°12′W.
G.M.T. of Local Mean Noon	12h.13m.

Heights of instruments	*above M.S.L.*	*above ground*
	m.	m.
Barometer	237·3	••
Thermometer bulbs	••	0·9
Rain-gauge	242·0	••
Dines tilting-siphon recorder	••	••
Sunshine recorder	••	1·5
Pressure-tube anemograph	250	15

INTRODUCTION

Reference should be made to the 1938 volume for details of site and meteorological instruments. The only important change since that date was the replacement of the Beckley rain-gauge by the Dines tilting-siphon recorder in September 1940.

Notes on the meteorological summaries

The extreme temperatures during the year were 297·7°A. (76·5°F.) on 22 June and 259·8°A. (8·2°F.) on 27 February. With a mean temperature of 265·9°A. (19·2°F.), 16 January was the coldest day of the year and 22 June, with 290·4°A. (63·3°F.), was the hottest. There was one ice day, i.e. day with maximum temperature below 273°A., which occurred in January.

The total rainfall for the, 1652·0 mm. (65·04 in.), was greater than normal. Snow fell on 40 days. The total duration of bright sunshine, 1201·8 hours, was nearly normal.

The highest gust of wind during the year, 29·2 m./sec. (65 m.p.h.), was on 4 January. The highest hourly speed, over 19 m./sec. (43 m.p.h.), occurred on 5 June.

The results of the harmonic analysis of the diurnal inequalities of pressure are set out in the accompanying Table 87. For purposes of comparison the corresponding data are also given derived from the mean inequalities for the period 1911-20 by Dr. A. Crichton Mitchell.*

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* MITCHELL, A.C.; On the diurnal variation of atmospheric pressure at Eskdalemuir and Castle O'er, Dumfriesshire. *Quart. J.R. met. Soc., London*, 50, 1924, p.127.

TABLE 87 - HARMONIC COEFFICIENTS OF THE DIURNAL INEQUALITY OF ATMOSPHERIC PRESSURE

Values of c_n, α_n in the series $\sum c_n \sin(15nt + \alpha_n)$, t being local mean time reckoned in hours from midnight

	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1946	1911-1920	1946	1911-1920	1946	1911-1920	1946	1911-1920	1946	1911-1920	1946	1911-1920	1946	1911-1920	1946	1911-1920
	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°
January	0.39	0.09	318	346	0.24	0.23	164	152	0.15	0.13	0	345	0.07	0.05	232	214
February	0.63	0.12	153	215	0.17	0.27	135	138	0.09	0.08	337	341	0.04	0.04	320	68
March	0.15	0.13	95	185	0.32	0.30	152	145	0.04	0.05	328	335	0.04	0.05	19	25
April	0.22	0.21	23	92	0.37	0.30	149	155	0.04	0.02	149	156	0.06	0.05	341	356
May	0.44	0.23	50	53	0.37	0.27	157	147	0.06	0.07	166	160	0.04	0.03	320	330
June	0.27	0.15	99	54	0.22	0.23	154	146	0.08	0.08	141	161	0.03	0.02	1	326
July	0.20	0.17	138	69	0.22	0.21	149	141	0.11	0.08	148	156	0.03	0.02	343	300
August	0.29	0.11	128	115	0.19	0.24	155	148	0.07	0.06	135	157	0.05	0.05	343	331
September	0.09	0.12	93	88	0.23	0.31	129	152	0.02	0.01	73	111	0.07	0.05	338	345
October	0.07	0.11	274	76	0.34	0.31	174	159	0.09	0.06	1	8	0.03	0.04	11	33
November	0.50	0.13	58	183	0.34	0.24	175	168	0.11	0.10	47	9	0.01	0.01	181	146
December	0.23	0.14	133	97	0.23	0.21	169	147	0.12	0.12	13	4	0.03	0.07	235	213
Arithmetic Mean	0.29	0.14			0.27	0.26			0.08	0.07			0.04	0.04		
Year	0.15	0.09	100	91	0.27	0.26	157	150	0.03	0.02	48	42	0.03	0.02	327	342
Winter	0.15	0.04	102	165	0.24	0.24	165	151	0.11	0.11	10	355	0.03	0.02	250	189
Equinox	0.08	0.11	54	104	0.31	0.31	153	153	0.02	0.02	12	4	0.05	0.04	349	9
Summer	0.24	0.15	95	67	0.25	0.24	154	146	0.08	0.07	147	159	0.03	0.03	340	324

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

Atmospheric electricity

The disposition of the instruments and the arrangement of the tables recording the results remain substantially the same as described in the 1938 volume. The Wulf quartz-thread electrometer (N.3040) was calibrated in July. No material change had taken place since the previous year.

Terrestrial magnetism

Reference should be made to the 1938 volume for notes on the instruments and tables.

Notes on the results

Comparing mean values on all days of 1946 with those for 1945 it is noted that H decreased by 10γ, D(west) decreased by $8'\cdot6$ and V increased by 27γ. The changes in the deduced quantities N, W, I, and T are -1γ, -43γ, $+1'\cdot3$, $+22\gamma$. If these changes are compared with those for previous years the discontinuities introduced on 1 January 1934 in H and V and the components derived from them must be kept in mind.

The ranges between the extreme values recorded during 1946 were H, 2746γ; D, $3°54'\cdot6$; V, 1314γ.

Table 88 summarizes the magnetic character figures assigned locally and the international mean character figures. At the Assembly of the Association of Terrestrial Magnetism and Electricity at Washington in September 1939, a new measure of magnetic disturbance, the K index, was agreed upon. Measurements of K are now given in this volume replacing the former measure $(HR_H + VR_V)10^{-4}$ in accordance with International Association of Terrestrial Magnetism and Electricity circular letter dated 20 January 1940. The K index is fully described in *Terrestrial magnetism and atmospheric electricity.**

*BARTELS, J., HECK, N.H. and JOHNSTON, H.F.; The three-hour-range index measuring geomagnetic activity. *Terr. Magn. atmos. Elect., Baltimore, Ma. 44, 1939, p.411.*

Briefly, a figure is allotted, on a scale 0-9, to each three-hour interval. The figure is a measure of the range of magnetic force during that period, measured from a curved line which represents the normal quiet-day variation. The figures are first allotted from the *H* magnetogram and then increased, if necessary, by inspection of the *D* and *V* curves, so that the most disturbed component determines the final figure. The scale of ranges in γ corresponding to the figures 0-9 varies from observatory to observatory. The lower limit of each number for Eskdalemuir is:

K	0	1	2	3	4	5	6	7	8	9
Range in γ	0	8	15	30	60	105	180	300	500	750

Table 88 has been slightly changed in form from years before 1940 owing to the omission of $(HR_H + VR_V)10^{-4}$. *K* figures and their sums have been given for each day in the main tables but as it is considered that monthly means of *K* figures are not a good measure of activity they are not included.

TABLE 88

	Magnetic character figures			Mean character figures	
	Number of 0 days	1 days	2 days	Eskdale-muir	Inter-national
January	10	19	2	0·74	0·55
February	8	15	5	0·89	0·69
March	9	17	5	0·87	0·84
April	10	17	3	0·77	0·58
May	11	16	4	0·77	0·62
June	6	22	2	0·87	0·63
July	10	17	4	0·81	0·71
August	10	19	2	0·74	0·42
September	8	14	8	1·00	0·82
October	10	19	2	0·74	0·51
November	11	19	0	0·63	0·52
December	13	18	0	0·58	0·39
Year					
1946	116	212	37	0·78	0·61
1945	150	200	15	0·63	0·47
1944	161	190	15	0·60	0·52
1943	146	197	22	0·66	0·68
1942	151	191	23	0·65	0·64
1941	172	168	25	0·60	0·73
1940	156	184	26	0·65	0·72
1939	167	172	26	0·61	0·77
1938	183	135	47	0·63	0·76
1937	116	205	44	0·81	0·73
1936	144	198	24	0·67	0·65

The values of mean absolute daily range for the months and seasons are brought together in Table 89 where for convenience of comparison the ranges of declination in angle have been converted to units of force of the component perpendicular to the magnetic meridian.

The frequency distribution of absolute daily ranges recorded in 1946 is shown in Table 90 which contains also the percentage distribution for 1946 and for the period 1932-1942.

TABLE 89 - ABSOLUTE DAILY RANGE AND MEAN MONTHLY VALUES

	Mean absolute daily range						Mean daily range expressed as percentage of yearly mean					
	1946			Mean 1932-42			1946			Mean 1932-42		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	γ	γ	γ	γ	γ	%	%	%	%	%	%
January	66	77	54	78	79	44	47	73	67	81	91	77
February	153	125	94	76	86	50	110	118	116	79	99	88
March	241	160	145	122	113	82	173	151	179	127	130	144
April	206	132	97	125	103	79	148	125	120	130	118	139
May	126	98	78	111	86	66	91	92	96	116	99	116
June	129	90	71	100	81	50	93	85	88	104	93	88
July	203	116	88	106	82	53	146	109	109	110	94	93
August	105	94	55	102	85	57	76	89	68	106	98	100
September	238	157	169	102	95	64	171	148	209	106	109	112
October	85	86	51	97	94	65	61	81	63	101	108	114
November	68	79	37	67	75	41	49	75	46	70	86	72
December	54	61	30	61	69	40	39	58	37	64	79	70
Winter	85	85	54	70	77	44	61	80	67	73	89	77
Equinox	193	134	115	111	101	72	139	126	142	116	116	126
Summer	141	99	73	105	84	57	101	93	90	109	97	100
Year	139	106	81	96	87	57	..	..	..	..	..	..

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

TABLE 90 - FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE

Range	Number of cases, 1946			Percentage distribution					
				H		*D*		*V*	
	H	*D*	*V*	1946	1932-42	1946	1932-42	1946	1932-42
γ				%	%	%	%	%	%
0 - 9	0	0	4	0·0	0·0	0·0	0·0	1·1	3·0
10 - 19	1	0	47	0·3	1·0	0·0	0·4	12·9	15·8
20 - 29	13	8	63	3·6	4·2	2·2	2·9	17·3	22·1
30 - 39	20	12	65	5·5	6·6	3·3	5·7	17·8	16·8
40 - 49	21	21	40	5·8	8·7	5·8	8·1	11·0	9·5
50 - 59	31	38	32	8·5	11·4	10·4	13·2	8·8	6·9
60 - 69	39	49	24	10·7	13·2	13·4	14·0	6·6	5·1
70 - 79	50	47	10	13·7	10·6	12·9	12·5	2·7	3·4
80 - 89	24	50	7	6·6	9·3	13·7	10·3	1·9	2·7
90 - 99	28	28	10	7·7	6·9	7·7	7·8	2·7	2·3
100 - 109	25	26	10	6·8	5·3	7·1	5·3	2·7	1·8
110 - 119	16	15	9	4·4	4·5	4·1	3·8	2·5	1·4
120 - 129	7	15	3	1·9	2·9	4·1	3·3	0·8	1·4
130 - 139	9	7	4	2·5	2·7	1·9	2·5	1·1	0·9
140 - 149	12	5	3	3·3	1·8	1·4	1·8	0·8	0·8
150 - 159	11	8	1	3·0	1·9	2·2	1·7	0·3	0·5
160 - 169	8	2	1	2·2	1·3	0·5	1·4	0·3	0·5
170 - 179	6	4	1	1·6	1·0	1·1	0·8	0·3	0·2
180 - 189	4	5	2	1·1	0·8	1·4	0·8	0·5	0·5
190 - 199	1	3	1	0·3	0·7	0·8	0·7	0·3	0·4
200 +	39	22	28	10·7	5·2	6·0	3·1	7·7	4·0
Days omitted	0	0	0	..	..	..	..	..	..

The average values of the diurnal inequality ranges for the year and seasons for the period 1932-1942 (not the values of the range of the representative mean diurnal inequalities for this period) are given in Table 91 along with the 1946 values expressed as a percentage of the average values. The units employed are 1γ for force and 1′ for declination.

TABLE 91 - AVERAGE RANGE OF DIURNAL INEQUALITY 1932-42 WITH 1946 VALUE AS PERCENTAGE

		All days					International quiet days					International disturbed days				
		N	W	V	H	D	N	W	V	H	D	N	W	V	H	D
		γ	γ	γ	γ	′	γ	γ	γ	γ	′	γ	γ	γ	γ	′
Year	1932-42	37.5	40.1	25.4	36.9	8.54	34.2	37.9	12.8	33.6	8.17	51.6	55.2	71.7	52.1	11.47
	1946(%)	118	113	135	118	108	114	116	116	117	116	141	119	173	149	103
Winter	1932-42	21.0	30.2	19.5	18.5	6.70	17.6	19.1	5.6	15.7	4.23	29.2	51.9	61.0	28.8	10.86
	1946(%)	112	96	114	118	98	127	117	100	134	114	147	99	126	169	103
Equinox	1932-42	44.6	46.4	32.1	42.6	10.02	40.1	43.8	13.9	38.8	9.56	71.2	72.4	94.5	72.8	14.56
	1946(%)	111	115	161	122	107	114	110	118	115	110	227	151	220	249	105
Summer	1932-42	55.6	56.7	29.8	58.0	11.66	47.7	53.8	20.8	49.2	11.37	77.3	65.8	71.6	82.2	12.51
	1946(%)	116	110	126	116	108	113	120	116	115	119	128	110	155	127	108

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

Irregular changes in declination:- In connexion with the supply of declination data to mine surveyors it has been the practice to classify the hourly periods between the exact hours G.M.T. into four groups according to the range in declination within each period. The range limits, which were adopted in consultation with representative mine surveyors, are: less than 5′, between 5′ and 15′, between 15′ and 30′ and greater than 30′. The range is less than 5′ in about 85 per cent of the hourly periods. The actual frequencies of occurrence in the last three of the four divisions mentioned are set out below. A range of 30′ is equivalent to a change of 144γ in the component of horizontal force perpendicular to the magnetic meridian.

Number of cases per month 1946 .

Range interval	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
5′ to 15′	66	83	140	114	155	98	107	84	132	106	102	47	1234
15′ to 30′	16	25	32	14	8	3	12	5	29	7	6	2	159
>30′	3	10	32	7	1	0	9	1	32	1	0	0	96

Hourly distribution, 1946

Range	*Hour ending at (G.M.T.)*																							
Interval	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5′ to 15′	60	55	65	52	52	47	45	47	42	42	71	74	37	31	39	38	38	48	43	47	56	71	63	71
15′ to 30′	8	8	7	9	7	5	6	8	5	3	2	2	1	3	4	4	7	9	12	9	12	7	14	7
>30′	6	6	8	6	5	3	2	1	1	1	2	3	2	2	3	7	5	5	3	4	5	5	7	4

Principal disturbances.- Particulars of the principal magnetic disturbances recorded during the year are given in Table 92. Corresponding information for the same disturbances is given in the Lerwick section Table 6. The magnetograms for the most highly disturbed days are not reproduced in this volume but photographic copies may be obtained on application to the Director-General, Meteorological Office, Air Ministry, Kingsway, London, W.C.2.

TABLE 92 - PRINCIPAL MAGNETIC DISTURBANCES RECORDED AT ESKDALEMUIR, 1946

No.	From	To	Horizontal force					Declination					Vertical force				
			Max.	Time	Min.	Time	Range	Max.	Time	Min.	Time	Range	Max.	Time	Min.	Time	Range
	d. h. m.	d. h.	γ	d. h. m.	γ	d. h. m.	γ	′	d. h. m.	′	d. h. m.	′	γ	d. h. m.	γ	d. h. m.	γ
1*	Jan. 3 8 8	Jan. 5 5	579	3 10 20	325	3 21 36	254	34·8	3 16 10	-21·8	3 18 31	56·6	1501	3 16 13	918	3 22 2	583
2	Jan. 23 20	Jan. 25 3	597	23 22 30	415	24 13 23	182	19·6	24 12 58	-24·2	23 22 21	43·8	1161	24 16 0	1070	24 2 40	91
3	Feb. 7 7	Feb. 9 0	826	7 22 28	-1372	8 0 33	2198	58·2	8 0 42	-88·8	8 0 31	147·0	1424	7 18 34	695	8 1 15	729
4	Feb. 14 7	Feb. 15 22	616	14 17 39	444	14 9 8	172	26·3	15 3 58	3·6	14 8 50	22·7	1154	14 11 12	1059	15 4 40	95
5*	Feb. 19 15 0	Feb. 20 1	619	19 22 12	458	19 22 36	161	20·6	19 18 1	-17·1	19 22 6	37·7	1274	19 20 35	1095	19 22 25	179
6	Feb. 20 18	Feb. 24 3	623	21 14 58	384	21 1 19	239	31·7	21 14 58	-25·0	20 21 36	56·7	1279	21 15 4	1010	21 1 40	269
7*	Mar. 1 1	Mar. 2 19	631	2 0 26	455	1 8 39	176	17·3	2 0 35	-5·4	1 3 33	22·7	1132	1 23 28	1052	1 4 17	80
8	Mar. 4 7	Mar. 7 4	588	4 22 11	391	5 11 36	197	22·9	5 13 42	-8·3	5 0 47	31·2	1187	5 16 45	1064	5 0 35	123
9	Mar. 9 13	Mar. 12 0	595	10 14 38	341	10 23 26	254	31·5	10 2 7	-27·0	11 0 17	58·5	1201	10 20 13	934	11 1 19	267
10*	Mar. 22 5 39	Mar. 28 6	1353	25 15 34	-129	24 3 50	1482	89·3	25 17 10	-58·7	24 2 8	148·0	1489	24 16 3	728	24 3 48	761
11*	Mar. 28 6 34	Mar. 30 4	1528	28 15 1	-383	28 22 9	1711	72·7	28 22 1	-115·9	28 12 20	188·6	1417	28 16 51	393	28 13 50	1024
12	Apr. 9 8	Apr. 10 17	615	9 15 10	437	10 11 25	178	21·4	9 13 17	-9·2	9 22 45	30·6	1240	9 15 50	1090	10 1 2	150
13	Apr. 12 19	Apr. 17 4	634	15 18 52	386	15 7 34	248	26·7	15 7 50	-11·7	15 19 25	38·4	1281	15 15 23	1055	15 2 42	226
14*	Apr. 22 6 59	Apr. 25 16	933	23 16 53	-1320	23 23 25	2253	62·6	23 16 58	-145·3	23 23 38	207·9	1495	23 17 0	601	24 0 24	894
15*	May 6 4 13	May 12 0	705	6 22 53	340	11 8 33	365	28·4	7 5 51	-20·1	6 22 50	48·5	1262	9 16 26	1004	7 6 26	258
16	May 20 16	May 26 6	674	23 17 56	376	22 7 10	298	19·6	24 14 20	-9·2	22 4 45	28·8	1215	22 17 40	1011	22 4 31	204
17*	June 5 20 10	June 6 22	647	5 20 18	460	6 11 5	187	16·0	6 14 10	-3·0	6 7 53	19·0	1146	6 17 45	1109	6 0 29	37
18*	June 7 7 37	June 10 0	655	7 17 2	411	7 12 15	244	25·2	8 14 39	-4·8	{7 9 50 7 22 17	30·0	1297	7 16 56	1047	8 2 46	250
19*	June 12 3 1	June 14 0	647	12 15 16	457	13 12 56	190	16·8	12 14 15	-6·7	12 22 10	23·5	1221	12 17 37	1070	13 4 39	151
20	June 16 7	June 23 0	643	18 16 55	395	19 9 2	248	18·1	19 18 50	-15·3	17 1 1	33·4	1183	19 15 53	1000	17 2 20	183
21*	June 27 17 28	June 30 0	756	29 18 1	485	29 10 1	271	24·3	29 13 57	-10·7	29 4 50	35·0	1254	29 16 43	1065	29 8 55	189
22	July 7 2	July 12 0	638	7 17 48	433	8 0 11	205	16·1	8 14 12	-8·7	8 0 20	24·8	1200	7 19 22	1090	7 4 53	110
23	July 18 9	July 20 4	728	18 16 38	429	19 10 59	299	25·0	18 15 48	-7·5	18 22 7	32·5	1227	18 18 54	1066	19 2 20	161
24	July 25 10	July 29 4	1075	26 19 37	-1351	27 3 6	2426	61·1	27 6 29	-109·0	27 3 7	170·1	1378	26 22 32	564	27 1 39	814
25	July 29 4	July 30 20	765	29 16 42	404	29 9 52	361	22·0	29 5 51	-9·0	30 7 26	31·0	1196	29 17 11	1076	30 3 48	120
26	Aug. 7 10	Aug. 8 1	636	7 17 15	476	7 10 40	160	22·5	7 14 20	-7·7	7 19 44	30·2	1244	7 17 37	1109	7 12 17	135
27	Aug. 14 1	Aug. 17 24	682	14 21 4	390	14 12 11	292	20·0	14 21 9	-19·0	14 20 39	39·0	1191	15 18 12	1083	16 22 43	108
28*	Aug. 30 22 40	Aug. 31 24	609	30 22 46	320	31 5 18	289	37·8	31 5 25	-14·7	31 2 21	52·5	1219	31 17 21	907	31 5 43	312
29*	Sept. 16 13 47	Sept. 17 8	627	16 16 41	341	17 1 49	286	16·2	16 17 14	-28·6	16 19 38	44·8	1333	16 19 3	927	17 2 3	406
30	Sept. 17 14	Sept. 20 2	701	18 15 32	151	18 3 54	550	46·0	18 18 59	-37·3	18 3 59	83·3	1364	18 16 51	759	18 3 12	605
31*	Sept. 21 17 12	Sept. 24 17	1374	22 14 29	-48	22 6 19	1422	54·1	22 14 53	-111·6	22 11 40	165·7	1707	22 14 6	771	22 6 16	936
32	Sept. 27 2	Oct. 1 2	1022	28 15 39	115	28 21 13	907	35·2	28 15 37	-31·3	28 20 54	66·5	1516	28 17 19	829	29 1 13	687
33*	Oct. 25 21 58	Oct. 28 2	628	26 22 4	356	27 1 33	272	18·7	27 14 20	-33·9	27 2 15	52·6	1236	27 16 35	964	27 0 34	272
34*	Nov. 24 3 45	Nov. 26 19	610	25 20 24	412	24 13 46	198	23·4	24 13 15	-15·0	25 20 18	38·4	1179	25 15 44	1106	26 3 33	73

Where the beginning of a disturbance has been marked by a "sudden commencement", the serial number is followed by an asterisk, and the time entered in the second column is that of the sudden commencement, estimated to the nearest minute. In other cases the exact hour nearest the time at which disturbance may be regarded as having begun is entered in the second column. To the tabulated values of maximum and minimum the following have to be added:– *H*, 16,000γ; *D*, 12°; *V*, 44,000γ.

REMARKS ON MAGNETIC AND ALLIED PHENOMENA, 1946

General. The year was one of increasing activity and the autumn equinox was notably disturbed. In the notes which follow, the sunspot data have been extracted from an article in *The Observatory* for February 1947, and from the Mount Wilson Observatory Bulletins, published quarterly in *Terrestrial Magnetism and Atmospheric Electricity*.

The abbreviation C.M.P. is used for Central Meridian Passage, and areas are given in millionths of the sun's hemisphere.

JANUARY (average character figure 0·74).– Slightly disturbed conditions on 1 January became almost quiet on the 2nd and 3rd until a "sudden commencement" at 3d.8h.8m. introduced a moderate storm which lasted until about 5d.5h. The storm gave mainly low values of *H* from about 3d.11h. until 4d.3h. without much oscillation, and rather high values of westerly declination until about 3d.18h. succeeded by slightly low values until about 4d.2h. It was most marked in *V*. The value of this element rose rapidly soon after 3d.15h. to a peak at about 16h. and then decreased to a sharp minimum at 22h. Thereafter the general level of the *V* trace remained somewhat low until 4d.3h. at which time the general recovery set in. The traces continued to show moderate disturbance during the 4th, but by 5d.5h. it had become almost negligible. The over-all ranges were 254γ in *H*, 56′·6 in *D* and 583γ in *V*.

From the 5th to the 17th inclusive conditions remained quiet or only slightly disturbed. Outstanding quiet periods were 8th-9th and 13th-15th. On the other hand there were noticeable bays in the *D* or *H* traces (or both) on the 6th, 7th and 11th. The 18th brought a brief period with a few moderate oscillations in *H* and after several rather quiet days these were renewed on the 23rd-24th in a disturbance which lasted from about 23d.20h. to 25d.3h. During the last two hours of the 23rd there were marked single oscillations in *H* and *D* and these were followed by serrated trace and some further oscillation on the 24th. The ranges in *H* and *D* were considerable but were due to isolated bays and not to the intensity of the general disturbance. They amounted to 182γ and 43′·8 respectively. The range in *V* was only 91γ. Slight disturbance continued on the 26th but the remaining days of the month were almost quiet.

FEBRUARY (average character figure 0·89).- The first two days of February were quiet, but moderate disturbance set in with a "sudden commencement" at 3d.13h.42m. This continued irregularly with some quiet intervals during the next few days, its most prominent feature being an oscillation of about 110γ in *H* between 0h. and 1h. on the 6th. It was followed by a vigorous storm which set in at about 7d.7h. and lasted until about 9d.0h. Large oscillations of *H* and *D* began at about 7d.20h.20m. The beginning of the main rise to peak values of *V* was, however, delayed until 14h. The *V* trace reached its maximum at 7d.18h.34m. but there were two comparable peaks between 16h. and 18h. After the maximum at 18h.34m., *V* decreased fairly rapidly to low oscillatory values which were maintained from about 7d.22h.30m. to about 8d.3h.30m. It was during this period of low values in *V* that the greatest oscillations and extremes of *H* and *D* were recorded. After 3h.30m. all three elements recovered rapidly although considerable oscillation continued in *H* and *D* until late on the 8th and *V* was above normal during the afternoon. The over-all ranges recorded were 2198γ in *H*, 147′·0 in *D* and 729γ in *V*. This storm was with little doubt related to a group of sunspots of exceptional size whose C.M.P. occurred on 5-6 February.

After the end of the storm of the 7th-9th, irregularities in the traces fell off gradually and quiet or only slightly disturbed conditions reigned from the 11th until about 7h. on the 14th. The trace on that day became serrated from about 6h. and in the evening there were three noteworthy sharp "kicks" in the trace of *H*. Also moderate bays were recorded in *D* and *V* between 4h. and 5h. on the 15th. Noteworthy serration ceased at 15d.22h. Only in *H* did the range (172) exceed 150γ; those of *D* and *V* were but 22′·7 and 95γ respectively.

Between the 15th and the 19th the nights 15th-16th and 17th-18th were noticeably quiet. Slight disturbance continued during the rest of the period and increased considerably for some hours from a "sudden commencement" at 19d.15h.0m. until 20d.1h. The outstanding features in the *H* and *D* records were sharp single deflections between 22h. and 23h. on the 19th. The *V* trace showed a marked rise and recovery from 18h. to 23h. of the 19th with a double peak between 20h. and 21h. The respective ranges were 161γ in *H*, 37′·7 in *D* and 179γ in *V*.

A brief quiet interval succeeded the disturbance of the 19th. This gave way to a greater disturbance the beginning of which is very indefinite but perhaps may be placed at about 20d.18h. The larger changes in all three elements set in at about 20h. At this time *V*, which had been rising gradually since noon, began a somewhat irregular decrease during which low values and moderate oscillations of *H* and *D* were recorded. The minimum of *D* occurred at about 20d.21h.30m. and those of *V* and *H* between 1h. and 2h. on the 22nd.

After 21d.6h., *V* increased gradually until 15h. at which time there was a moderate sharp rise to a peak followed by a fairly smooth descent to a trough at 4h. In the *H* and *D* traces there were noteworthy "kicks" at the time of the peak in *V* but apart from these the disturbance was not great. Over-all ranges reached 239γ in *H*, 56′·7 in *D* and 269γ in *V* and the disturbance ended at about 24d.3h. Residual irregularities in the traces of *H* and *D* continued for several days afterwards. The close of the month, from the 26th was, however, rather quiet.

MARCH (average character figure 0·87).- A marked "sudden commencement" was recorded at 1d.1h.37m. but the succeeding disturbance was slight apart from an isolated sharp oscillation in the *H* and *D* traces between 0h. and 1h. on the 2nd. The single oscillation was almost entirely responsible for the range of 176γ recorded in *H*. The ranges in *D* and *V* were only 22′·7 and 80γ respectively.

Irregular disturbance was renewed again on the 4th after a short, relatively quiet interlude. Its beginning and end were very ill-defined but may perhaps be placed at 4d.7h. and 7d.4h. The chief irregularities were recorded between 4d.21h. and 5d.2h. and included a noteworthy single oscillation in *H* and *D*. There was also a sharp trough in the *H* trace shortly before noon on the 5th. The ranges recorded were 197γ in *H*, 31′·2 in *D* and 123γ in *V*.

The 8th was a notably quiet day and so also was the 9th until about 13h. Appreciable disturbance followed and can hardly be separated from the marked disturbance of the succeeding day although a decided "sudden commencement" was recorded at 10d.1h.50m. The outstanding part of this disturbance was between 10d.19h. and 11d.2h. The *V* trace showed a small peak shortly after 20h. followed by a decrease to a marked minimum at between 1h. and 2h. There were also in this interval three or four marked oscillations of *H* and *D* accompanying a decrease and recovery in the general value of these elements. The disturbance terminated fairly definitely at about 12d.0h. Its over-all ranges were 254γ in *H*, 58′·5 in *D* and 267γ in *V*.

The period from the 12th to the 21st inclusive was quiet apart from some slight activity on the 15th, 17th, 20th and 21st. It was succeeded by a protracted stormy period which began with a "sudden commencement" at 22d.5h.39m. Disturbance on the 22nd was only moderate and occurred mainly before mid-afternoon and on the 23rd until 21h. there was not much more than serrated trace. At this time however large oscillatory decreases set in especially in *H* and *V*. The lowest values and greatest oscillations occurred between about 24d.1h. and 4h. All three traces had returned to near their normal positions by 24d.6h. but there was no clear break in the disturbance and both *H* and *V* reached high values between 24d.15h. and 17h. Another semi-quiet period followed until about 22h. at which time there was a recurrence with slightly less intensity of the disturbance recorded during approximately the same period 24 hours previously. There was no interval between this and a renewal with storm intensity of the previous afternoon's disturbance, though the three elements passed through their normal values. In this last phase of the storm, oscillation was much more pronounced and persistent in all three elements than during the earlier phases, and also the ranges of *H* and *D*, though not that of *V*, were much increased. The increase was specially marked in *D*. Conditions became progressively less disturbed after a minimum of *H* at about 25d.23h., and there was a suspension of large oscillations on the 26th and 27th. The disturbed period was not over, however, for a period of even greater storminess followed immediately after an almost violent "sudden commencement" recorded at 28d.6h.34m. In this storm short-period large oscillations in *H* and *D* lasted from about 8h. to 23h. on 28th and in *V* from noon until 23h. The value of *H* was much above normal for the greater part of the period from 14h.30m. to 17h. and below from about 20h.30m. to about 22h.30m. Westerly declination was also much below normal from about 12h. to 14h. as well as for shorter periods at about 15h. and 20h., and at 22h. there was a large swing on both sides of the normal. There were some low values of *V* between 12h. and 16h. (a change in character from the disturbance of the 25th) but thereafter the disturbance in *V* resembled that of the 25th in giving values mainly above normal. The large single oscillation at 22h. in *D* was accompanied by smaller oscillations of *H* and *V*. It marked the termination of the intense part of the storm and by 29d.5h. conditions were quiet. There were, however, residual moderate oscillations and some pulsation until the 30th. A possible connexion has been suggested between the storm and a sunspot region whose C.M.P. occurred on 27 March. The night 30th-31st gave a brief, quiet interlude followed by some irregular variation in the traces especially in the last two hours of the month.

The ranges between 22d.5h.39m. and 24d.6h. were 742γ in *H*, 808′·9 in *D* and 416γ in *V*, between 24d.8h. and 25d.8h. 1021γ in *H*, 65′·9 in *D* and 707γ in *V*, between 25d.8h. and 26d.9h. 1292γ in *H*, 140′·9 in *D* and 595γ in *V* and between 28d.6h.34m. and 29d.5h. 1711γ in *H*, 188′·6 in *D*.

APRIL (average character figure 0·77).- The irregular traces of the closing hours of March continued until about midnight of 2-3 April. The most prominent feature in this period was an oscillation of *H* between 2d.21h. and 22h. Conditions were quieter until the forenoon of the 5th but somewhat more disturbed again thereafter. On the 9th there was a considerable increase in the diurnal variation and there were a few oscillations in *H* and *D*, which together gave ranges of 178γ in *H*, 30′·6 in *D* and 150γ in *V* between 9d.8h. and 10d.17h. The quiet days intervened between this and a period of considerable disturbance with much serrated trace, which lasted until the 16th inclusive. This period started with a "sudden commencement" at 12d.19h.11m. On the 13th the *H* and *D* traces were much serrated and there were a few moderate oscillations in the evening. The disturbance increased on the 14th, continued throughout the night and reached its greatest development on the 15th on which day *H* was notably low in the forenoon and *V* notably high in the afternoon. A few marked slow oscillations between 15d.19h. and 20h. in which *H* reached its maximum and *D* its minimum ended the stronger part of the disturbance, but there were appreciable residuals until the early hours of the 17th. The extremes of all three elements occurred on the 15th between 6h. and 20h. the ranges being 248γ in *H*, 38′·4 in *D* and 226γ in *V*.

Following on the moderate disturbances mentioned above there was a fairly quiet period until 22d.7h.0m. A "sudden commencement" at this time was succeeded by moderate disturbance until shortly after noon of the 23rd when the disturbance developed into a storm. The value of *H* increased greatly by mid-afternoon subsequently falling off and becoming decidedly low from about 23d.23h. to 24d.3h. The general variation of *D* and *V* were similar to those of *H*.

The largest rapid oscillations of the storm occurred chiefly in the last hour of the 23rd and in the *V* trace were notably more marked than usual. The disturbance continued during the 24th and there was a marked isolated peak in *H* at 24d.16h.52m. It may be said to have ended at about 25d.7h., apart from slightly abnormal diurnal variation. The over-all ranges of the storm were 225.3γ in *H*, 207′·9 in *D* and 894γ in *V*. The remainder of the month was slightly disturbed except for a quiet 24 hours on the 27th-28th.

MAY (average character figure 0·77).- The slightly disturbed conditions of the closing days of April continued until 5 May, and there followed a period of moderate disturbance which lasted with little interruption until 11 May inclusive. The moderate disturbance may possibly be said to have begun with a "sudden commencement" at 6d.4h.13m. On this first day there was serrated trace, a considerable decrease and recovery of *H* between 6h. and 7h. and two marked peaks of *H* accompanied by an oscillation in *D* between 22h. and 23h. On the 7th there was a marked bay in the *D* and *V* traces from 5h. to 9h. This was repeated on a smaller scale but with an increased deflection in *H* at the same time of the 8th. The disturbance on the 9th was more concentrated. After a noticeable low value of *V* in the early morning this element rose to a fairly high value in the late afternoon and early evening thereafter falling and reaching a minimum shortly before 23h. This increase and decrease of *V* in the afternoon and evening was accompanied by increases and decreases in *H* and *D* - more especially in *H*. The ranges of *H* and *V* during the 9th were some 238γ and 229γ respectively. Disturbance on the 10th was relatively slight, but the traces were more serrated again on the 11th and there was a considerable range of *H* (271γ between a minimum at 11d.8h.33m. and a maximum at 11d.17h.20m.) with a few moderate oscillations in *H* and *D*. The disturbance may be said to have ended towards midnight by which time *V* had resumed its normal value: major oscillations ceased earlier, at 18h.

There was a period of little more than slight disturbance again from the 12th to the 20th, with almost quiet nights from the 14th to the 15th and the 18th to the 20th, but a moderate increase in *H* for two or three hours in the late afternoon of the 17th and a moderate hump on the *V* trace between 17d.12h. and 18d.4h. This period was followed by moderate disturbance, the major oscillations of which may be said to have terminated on the night of the 25th-26th. The night of the 20th-21st was moderately disturbed without any very outstanding features. There was some little development of oscillation on the afternoon and evening of the 21st, followed by rather low values of *V* and *H* between 22d.4h. and 8h. These low values recurred, though less markedly, at about 23d.2h. The afternoon and evening of the 23rd brought the greatest development in *H*, the moderate evening maximum which had been a feature of the preceding three days being considerably increased on this day. The *V* trace also had a corresponding moderate peak at 23d.17h.50m. After this the disturbance fell off progressively during the next two nights and was not more than slight from the 26th to the end of the month. The over-all ranges between the 20th and the 26th were 298γ in *H*, 28′·8 in *D* and 204γ in *V*.

JUNE (average character figure 0·87).- The slight activity of the last part of May persisted until 2 June. It was followed by a notably quiet interval until a small "sudden commencement" at 4d.6h.10m. introduced a further slight disturbance which lasted until the evening. On the following evening, after an almost quiet interval, there was a very marked "sudden commencement" at 20h.10m. and the traces were somewhat irregular on the following day and became considerably disturbed on the 7th and 8th. The increased disturbance set in with a sudden oscillation at 7d.7h.37m. differing somewhat from the conventional type of "sudden commencement". The principal features on the 7th were a high value of *V* in the afternoon followed by a gradual decrease to a minimum at 8d.2h.46m., and a very similar general variation of *H* with two considerable superposed slow oscillations at about noon and 15h. The ranges of *H* and *V* on the 7th were 244γ and 250γ respectively. The disturbance on the 8th occurred chiefly in *H* and was inconsiderable in *V*. It gave a generally irregular *H* trace with a range of 182γ. Serration and oscillation fell off during the 9th but there was still some disturbance on the 10th and 11th, the most prominent features being two moderate oscillations of *H* in the late afternoon of the 10th. There was renewed activity on the 12th after a noticeable period of undisturbed *D* trace. This new disturbance started with a "sudden commencement" which was not very well defined, at 12d.3h.1m. The main features were a considerable undulation in the *V* trace with high values from 16h. to 19h. and dropping to slightly low values on the following morning from 3h. to 5h., and a rather similar but more irregular variation of *H* with its peak at 12d.15h.16m. and its minimum at 12d.23h.10m. The ranges in *H* and *V* were 168γ and 151γ respectively. Disturbance then continued less intensively (though a somewhat lower minimum of

H was recorded at 12d. 12h. 56m.) until fresh activity on the 16th. This latter gave a rather high *H* during the late afternoon and evening on the 16th and a rather low *H* in the early hours of the 17th, the low values being accompanied by low values and some slow oscillation in *D* and *V*. The following day was quieter but the 18th and 19th more disturbed again. Both *H* and *V* had noteworthy maxima in the late afternoon and early evening of the 18th and *V* a minimum shortly before 19d. 2h.

The minimum of *H* was delayed until 19d. 9h. 2m. The disturbance recurred daily with diminishing amplitude until the night 23rd-24th. Over-all ranges were 248γ in *H*, 33′·4 in *D* and 183γ in *V*. Further moderately high values of *H* on the 25th were preceded by a "sudden commencement" at 24d. 18h. 18m. and there was somewhat greater activity on the 26th. This period was all more or less disturbed but perhaps the beginning of another intensification may be placed in a marked "sudden commencement" at 27d. 17h. 28m. although the large deflections of the traces did not occur until the afternoon and evening on the 29th. The trace of *H* reached rather high peak values at this time, and there was also a peak in *V*. The ranges between the 27th and the 30th were 271γ in *H*, 35′·0 in *D* and 189γ in *V*. Activity on the 30th was relatively inconsiderable.

JULY (average character figure 0·81).- Apart from rather abnormal diurnal variation in *H* the beginning of July was quiet, until a "sudden commencement" at 3d. 1h. 18m. introduced a disturbance which gave a range of 138γ in *H* during the day. Two quiet and one slightly disturbed day ensued before the onset of a marked disturbance at about 7d. 2h. This gave serrations and humps in the *H* and *V* traces on the evening of that day and the traces remained irregular from day to day thereafter until the 11th inclusive. The ranges on the 7th-8th were 205γ in *H*, 24′·8 in *D* and 110γ in *V*.

A moderate disturbance was recorded again on 14th-15th after two quiet nights. It gave a range of 155γ in *H* between the evening of the 14th and the morning of the 15th. Disturbance decreased on the 15th but increased again on 16th-17th the range being 157γ in *H* on the 16th. This led up to a considerable disturbance on the 18th-19th. The latter seems to have started suddenly with increased serration of the traces at 18d. 9h. 5m. It gave sudden increases of *H* and *D* (especially of *H*) at about 14h., and a more gradual increase of *V*. The values fell off after about 19h. and minima were recorded round about 19d. 2h. This variation was repeated in a less marked form on the following day but it was hardly recognizable on the 20th-21st: it may be said to have ended at about 20d. 4h. The absolute minimum of *H* occurred later on the 19th at about the time of the ordinary diurnal minimum. Over-all ranges during the disturbance were 299γ in *H*, 32′·5 in *D* and 161γ in *V*.

Moderate disturbance recurred from the 21st to the 23rd with a change of type from coarse to fine serrations on the 23rd. The 24th-25th was only slightly disturbed but what may perhaps be regarded as a "sudden commencement" at 25d. 10h. 15m. then introduced moderate disturbance which gave place suddenly at 26d. 18h. 47m. to the rapid oscillations of a major storm. The trace of *H* was rather high and oscillatory from this time to about midnight but thereafter until 7h. recorded more pronounced low values with increased oscillation. The trace of *V* was rather similar in appearance to that of *H*, but the initial sudden onset of the storm gave decreased *V* and, except for a peak between 22h. and 23h., *V* was much less above normal than *H* in the first phase which ended at about midnight. In *D* the duration of great disturbance was the same as in the other two elements. The first phase gave some oscillation but no noteworthy general deviation from the usual value. In the second, stronger phase the declination was mainly below normal and there was much more oscillation. All three traces returned to about their normal positions between about 27d. 7h. and 9h. but considerable oscillation continued in *H* until the evening. The night 27th-28th was only slightly disturbed, but following that there was moderate disturbance which gave considerable ranges in *H* on the 29th and 30th with a noteworthy change from coarse to fine serrations at 29d. 4h. 42m. similar to that of the 23rd. This could be regarded as a "sudden commencement" though not of the conventional type. The storm was probably associated with an exceptionally large sunspot region, approaching in size that of February, whose C.M.P. occurred on 26-28 July. Activity on the last day of the month was hardly more than slight. The ranges in the storm of 26th-27th were 24γ-26γ in *H*, 170′·1 in *D* and 814γ in *V* and those of the 29th-30th 361γ in *H*, 31′·0 in *D* and 120γ in *V*.

AUGUST (average character figure 0·74).- The first six days of the month were slightly disturbed only, and the 3rd-4th verged on quiet. A moderate disturbance followed on the 7th being introduced by what may perhaps be regarded as a "sudden commencement" at 7d.1h.17m. Fairly high values of *H* and *V* were recorded on the afternoon and evening. The traces returned to about normal by midnight but there was slight recurrence on the evening of the 8th. The 9th-10th had also slight disturbance which increased to moderate on the 11th but with no very outstanding features, and decreased again on 12th-13th. Moderate activity was renewed on the 14th. The trace of *H* descended from 14d.7h. to a noticeably low value by noon, then recovering to about normal by 13h. and continuing moderately variable thereafter with a marked sharp oscillation which affected all three traces at 21h. The ranges during the 14th-15th were 292γ in *H*, 39′·0 *in* D and 102γ in *V*. Moderate disturbance continued on the following three days but from the 18th to the 21st conditions were semi-quiet and on the 22nd-23rd notably quiet. Thereafter slight disturbance prevailed until the 28th inclusive, followed by an almost quiet interval on the 29th-30th and fairly marked disturbance on the 31st. The beginning of the latter may be placed at about 30d.19h. but there was also an oscillation of the "sudden commencement" type at 30d.22h.40m. The traces returned to about normal again at about 31d.24h. The outstanding features of the disturbance were pronounced dips in all three traces between 31d.5h. and 6h. These, however, were not simultaneous in *D*, the dip (increase of westerly declination) being a few minutes later than the one in *H*, and that in *V* following after about half an hour. There were also appreciable humps in the *H* and *V* traces in the late afternoon. The ranges were 286γ in *H*, 52′·5 in *D* and 312γ in *V*.

SEPTEMBER (average character figure 1·00).- Conditions were fairly quiet until the evening of the 3rd when slight disturbance set in. This continued until the 5th and was renewed on the 7th after a quiet 24 hours from the morning of the 6th to the morning of the 7th. Thereafter it persisted with varying intensity until the 16th. The most noteworthy deviation of the traces occurred between 10d.22h. and midnight and on the other hand the activity was noticeably less pronounced from the 13th to the 15th. On the 16th marked disturbance set in with a "sudden commencement" at 13h.47m. and recurred daily in what might be regarded as a series of small storms until the 19th inclusive. The first storm lasted until about 17d.7h. It gave high values of *H* and *V* in the afternoon and evening of the 16th followed by minima at about 17d.2h. It is noticeable that the minimum of *H* preceded that of *V* as in the disturbance of 31 August. There were a few fairly sharp oscillations in all three traces at about 19h.-20h. and *V* reached its peak at this time. The ranges were 286γ in *H*, 44′·8 in *D* and 406γ in *V*.

The second storm may be said to have begun at about 17d.16h. and there was no perceptible pause between this and the third storm. The most noticeable features were very low values of *H* and *V* with some oscillation between 18d.2h. and 4h., *V* recovering from 4h. onwards but *H* not until 9h. onwards. The increase of *V* did not stop at the normal value but continued without break to peaks between 15h. and 17h. A similar remark applies also to *H* which reached its peak between 18d.15h. and 16h. There were a few sharp oscillations at about 19h. These left all three elements at considerably lower values than before and *V* continued to decrease towards a minimum (less pronounced than that of the 18th) which was reached shortly before 19d.4h. In *H* the decrease was not so continuous and the minimum was again recorded somewhat earlier than that of *V*. Residual disturbance gave further but reduced peaks in *H* and *V* between 19d.3h. and 16h. and the disturbance was practically over by 19d.18h. The ranges were 550γ in *H*, 83′·3 in *D* and 605γ in *V*.

After a short interval of slight activity another period of intense disturbance set in with an exceptionally strong "sudden commencement" at 21d.17h.12m. This storm was most intense on the 22nd but continued also through the 23rd after some falling off for a brief period during the intervening night hours. Its structure in *V* showed two main oscillations from early morning minima to afternoon maxima on 22nd-25th and 23rd-24th the second one being slightly less pronounced. The deep minimum between 22d.4h.30m. and 6h.30m. occurred with little preparatory activity. From it there was rapid recovery until 9h. and after 11h. a further irregular rise followed by abrupt peaks and rapid vibration between 13h. and 15h. After 19h. the trace descended smoothly until 23d.1h., then dropped moderately to a low level (not so low, however, as on the 22nd) which was maintained until 7h. There was then a steady rise until

14h. followed by peaks between 15h. and 17h. The value of *V* thereafter returned fairly gradually to normal by about 24d.8h. The general character of the changes of *H* were similar to those of *V* but there was much more rapid oscillation especially during the afternoon of the 22nd. There was an isolated peak shortly after 23d.16h. which considerably surpassed any of those on the 22nd. In *D* the disturbance reached storm dimensions on the 22nd only. For the greater part of the disturbed period westerly declination was increased but there were some considerable swings in the opposite direction between 6h. and 7h. and in the afternoon during the period of rapid oscillation. The ranges were 1422γ in *H*, 165′·7 in *D* and 936γ in *V* all these being recorded on the 22nd.

After semi-quiet days on the 25th-26th further disturbance set in again at about 27d.6h. It was limited mainly to the late afternoon and early evening on this day but developed into a storm on the 28th. The principal features were high values in *H* and *V* between 15h. and 18h. followed by low values between 27d.21h. and 28d.3h. There was little or no rapid oscillation but a peak in *H* between 27d.15h. and 16h. was notably high. The disturbance in *D* was less marked than in *H* and *V* and consisted of fairly marked slower oscillations without any general great departure from the mean. This phase of the storm was over by about 28d.6h. There was however recurrence of moderate disturbance on the last two days of the month. The ranges on the 28th-29th were 907γ in *H*, 66′·5 in *D* and 687γ in *V*.

A large sunspot group which crossed the sun's disc during 13-26 September and was within the central part of the disc on 16 September was associated with the magnetic disturbances of the month.

OCTOBER (average character figure 0·74).- This month had only one specially noteworthy disturbance. This occurred about a solar revolution after the last disturbance of September.

At the beginning of the month the disturbance of late September had not quite subsided and there was a moderate range on 1 October. Slight irregular oscillation then continued, increasing to moderate on the 5th-6th, and giving place to a continuous but rather weak disturbance on the 9th-10th. Two almost quiet periods occurred from the 17th to the 19th followed by moderate oscillation on the 19th-20th. There was another almost quiet 24 hours on the 23rd-24th after which gradually increasing activity led to a fairly marked disturbance on the 25th-28th.

This isolated disturbance began with an ill-defined "sudden commencement" at 25d.21h.58m. (more clearly defined at Lerwick), and its end may be placed at about 28d.2h. Its main phase comprised a few fairly marked slow oscillations in *H* and *D* together with appreciable decreases in all three elements between 26d.20h. and 27d.5h. Oscillation became less marked later on the 27th but the diurnal variation was appreciably above average. The over-all ranges were 272γ in *H* and *V* and 52′·6 in *D*.

The only special feature during the remainder of the month was a quiet interval on the 30th and part of the 31st.

NOVEMBER (average character figure 0·63).- Like October, November had only one disturbance worthy of note, and as in October this followed the preceding disturbance after about one solar revolution.

The was some activity on 31 October and this increased to a continuous though not strong disturbance on 1 November. Subsequently slightly disturbed conditions were broken by quiet periods on 3rd-4th, 7th-8th and 14th-15th and by moderate disturbance on 6th-7th, 10th-12th and 19th-22nd.

The noteworthy individual disturbance of the month followed a "sudden commencement" at 24d.3h.45m. and lasted until about 26d.19h. Its main features on the 24th were fairly marked oscillations between 13h. and 14h. and a considerable amount of serrated trace. On the 25th there were two or three spasmodic oscillations of similar magnitude without serrations. The over-all ranges were 198γ in *H*, 38′·4 in *D* and 73γ in *V*. The remainder of the month was markedly quiet.

DECEMBER (average character figure 0·58).- This month was exceptionally free from disturbance, its greatest daily ranges being 120γ in H, 30′·8 in D and 110γ in V on the 19th, that is, rather less than a solar revolution after the November disturbance. In the main there was slight activity with a number of quiet intervals on the 30th-1st, 3rd, 4th, 8th-9th, 14th-16th, 20th-21st and a somewhat less quiet period from the 29th to the 31st. The only other moderate disturbance besides that of the 19th occurred on the 11th-12th. There was a marked "sudden commencement" at 25d.19h.13m. but the succeeding disturbance was hardly more than slight.

PRESSURE AT STATION LEVEL

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·61 is printed 95·61

93 ESKDALEMUIR: h_b(height of barometer cistern above M.S.L.) = 237·3 m.

.	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	00·2	92·1	95·0	60·1	54·5	58·1	86·6	81·8	84·2	96·9	94·1	95·6	89·7	88·0	88·9	61·7	58·3	*59·0*
2	05·0	00·2	03·2	65·1	*49·5*	*54·8*	86·4	82·9	85·2	95·5	93·6	94·7	90·9	87·7	88·5	68·4	*58·2*	62·0
3	04·8	92·2	99·5	65·2	57·2	60·8	82·9	74·1	77·3	94·3	87·8	91·2	99·1	90·9	94·4	81·5	68·4	75·0
4	92·2	78·1	84·0	64·4	60·4	62·1	82·8	76·5	79·4	87·8	84·1	85·5	00·0	95·9	98·2	81·4	70·6	76·5
5	84·7	79·4	82·9	83·2	64·4	73·6	90·5	82·8	87·3	00·5	86·4	93·4	00·5	97·9	99·5	70·6	60·7	64·1
6	89·3	83·6	86·2	83·9	77·1	81·1	92·2	90·3	91·4	03·6	99·4	*01·7*	*00·8*	99·2	*00·0*	84·8	67·1	76·4
7	89·0	81·2	84·1	81·3	74·7	76·9	91·8	83·7	88·6	99·5	88·2	93·8	00·4	95·8	97·9	89·6	84·8	87·7
8	81·2	65·8	72·2	75·0	64·8	69·8	83·7	78·0	80·0	92·8	84·7	87·4	99·8	95·3	97·6	89·4	81·3	84·8
9	71·8	45·1	*57·5*	88·6	74·3	84·5	85·3	78·9	81·7	01·8	92·7	97·5	99·7	95·9	97·5	81·4	74·3	79·5
10	68·9	*44·8*	60·6	87·9	84·4	86·4	89·4	85·2	87·2	*03·8*	97·4	01·4	96·9	94·1	95·8	77·1	70·8	72·7
11	69·3	63·9	66·2	91·8	86·7	89·7	89·4	80·4	86·2	97·4	85·4	90·3	96·5	91·1	94·1	81·8	77·0	78·9
12	92·9	65·5	78·4	97·2	91·8	94·7	80·4	74·0	76·3	85·8	83·5	84·5	91·1	87·4	89·0	93·1	81·8	86·9
13	09·8	92·9	03·0	04·9	97·2	00·5	82·8	75·1	79·4	89·5	85·1	86·7	89·3	85·8	87·1	95·7	93·1	94·8
14	13·4	09·8	11·8	08·8	04·9	07·0	87·2	82·4	84·3	89·5	85·8	88·1	85·8	83·0	84·4	94·8	87·5	91·0
15	*15·9*	13·4	*14·5*	*09·0*	04·9	*07·8*	95·1	87·1	90·3	87·5	84·3	85·3	86·2	82·1	84·1	87·5	82·9	84·8
16	15·5	09·7	12·6	04·9	98·5	01·8	99·1	95·1	98·0	89·0	76·4	84·3	83·6	81·6	82·8	82·9	78·1	80·1
17	09·9	99·4	05·1	04·4	93·4	00·4	98·2	86·7	92·4	89·0	74·6	81·1	90·6	83·0	86·4	79·5	78·9	79·2
18	99·4	85·1	90·6	95·1	88·2	93·0	87·7	86·0	86·9	00·0	89·0	94·8	93·8	90·4	92·2	78·9	76·5	77·4
19	92·5	83·6	87·1	88·2	76·1	82·0	87·1	85·0	86·0	00·4	96·4	98·6	93·6	88·9	91·1	83·6	78·3	80·4
20	96·5	92·5	94·7	87·4	75·2	79·7	86·5	76·0	79·1	97·8	95·4	96·2	89·4	82·1	85·0	93·6	83·6	87·3
21	99·8	95·4	97·9	94·2	87·4	91·4	82·8	76·8	80·3	03·1	97·5	99·6	84·0	79·1	81·0	*01·2*	93·6	98·4
22	95·4	80·7	88·2	92·2	65·5	82·3	77·2	*69·9*	*72·7*	03·3	93·3	00·4	93·4	84·0	88·9	00·8	98·5	*99·8*
23	90·5	78·7	83·5	79·0	55·4	66·7	84·7	75·0	79·7	93·3	80·4	85·2	94·3	92·3	93·4	98·5	87·5	93·6
24	91·5	81·4	87·2	83·2	79·0	81·2	87·8	83·7	85·3	80·5	71·9	76·3	92·6	88·2	89·9	87·5	83·5	85·1
25	85·0	77·7	82·1	84·2	81·7	82·8	93·7	87·8	91·3	72·0	*67·0*	*69·0*	88·9	84·5	86·6	86·2	79·0	83·2
26	81·5	75·8	78·9	85·4	83·8	84·7	99·1	93·6	96·1	83·0	69·7	76·0	84·5	79·3	81·8	84·9	76·8	79·8
27	82·2	79·2	81·5	84·5	75·5	79·9	99·9	98·3	99·2	85·3	82·7	84·1	79·3	69·4	74·0	85·5	75·8	81·7
28	79·2	62·4	71·7	81·8	74·9	77·5	99·7	93·2	96·8	85·1	76·7	80·9	78·7	75·7	77·7	84·7	77·5	80·4
29	67·1	53·8	61·7				96·3	91·8	93·4	82·8	74·8	77·6	80·3	77·7	78·5	84·7	77·6	82·1
30	71·7	54·8	61·8				*01·8*	96·2	*99·7*	89·5	82·7	86·2	80·2	68·7	75·9	93·1	82·3	88·6
31	76·5	59·3	70·5				01·6	96·5	98·5				68·7	*61·7*	*65·5*			
Mean	91·05	79·92	85·62	86·82	77·91	82·55	89·99	84·03	86·92	92·68	85·37	88·91	90·41	85·70	87·99	85·48	78·14	81·71

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	93·8	90·4	93·0	*90·5*	84·7	*88·7*	77·7	75·6	76·5	90·2	86·9	88·4	96·1	85·5	89·4	77·0	58·7	69·8
2	90·4	85·5	86·8	84·7	78·9	81·1	76·8	74·2	75·7	89·2	86·9	88·3	85·5	83·5	84·4	68·7	59·5	65·6
3	86·3	81·0	84·7	85·3	80·8	82·8	74·2	64·7	69·7	88·1	79·8	82·6	88·5	83·2	85·4	70·5	61·8	64·2
4	81·0	71·6	74·6	85·2	82·0	83·4	64·7	*61·6*	*62·6*	85·0	79·5	83·1	96·8	88·5	91·9	86·2	70·5	80·1
5	89·0	74·2	81·4	84·0	81·0	82·6	69·9	62·9	66·1	86·5	81·5	83·1	05·1	96·8	01·3	86·0	77·8	81·0
6	02·3	89·0	95·7	81·2	79·0	80·0	75·8	69·9	73·1	93·0	86·5	90·3	*05·3*	99·7	*03·7*	83·4	79·6	82·0
7	*04·0*	02·3	*03·2*	79·5	78·6	79·1	79·5	75·6	77·6	97·6	92·6	94·4	99·7	96·6	97·9	79·6	58·3	68·2
8	03·8	00·8	02·0	78·6	72·0	74·8	82·7	78·8	80·1	04·1	97·6	01·2	98·4	96·4	97·5	58·7	*52·8*	*55·7*
9	03·1	00·5	01·8	72·7	71·5	72·0	88·5	82·7	85·7	07·3	04·1	05·5	97·6	91·7	94·0	76·1	58·7	66·4
10	03·1	97·1	00·1	73·7	68·5	70·4	88·5	74·2	83·2	*09·8*	07·3	*08·9*	96·6	94·0	95·1	83·7	76·1	81·0
11	97·1	91·9	94·1	83·0	73·7	80·0	89·8	74·3	81·4	08·9	02·8	06·1	95·5	88·6	93·2	78·7	65·7	71·6
12	91·9	86·4	89·3	81·7	73·1	76·3	90·1	75·8	85·2	02·8	97·6	00·0	88·6	70·8	77·4	89·7	77·0	84·9
13	86·4	78·2	81·8	84·7	74·3	81·1	76·1	69·3	72·6	97·6	95·4	96·0	77·6	72·3	75·8	99·1	89·7	94·4
14	78·2	75·7	76·7	84·8	82·8	83·7	77·4	64·2	72·0	95·6	93·1	94·1	82·1	75·6	79·4	06·3	99·1	01·6
15	78·0	75·4	76·2	86·6	84·5	85·7	83·6	71·4	79·9	96·6	93·1	94·7	81·2	76·1	78·0	15·0	06·3	11·5
16	76·4	74·5	75·7	86·1	82·5	84·1	82·6	77·6	79·5	97·2	95·7	96·4	79·8	71·6	77·6	*15·5*	14·5	*15·0*
17	74·5	*67·8*	*71·7*	86·3	82·5	84·3	77·6	72·6	74·8	96·6	94·0	95·6	71·6	43·3	54·1	14·8	13·5	14·2
18	74·3	72·6	73·6	86·0	79·6	82·4	75·6	66·1	71·3	94·0	86·5	90·6	60·5	*43·2*	53·6	14·0	07·8	11·2
19	78·1	72·9	74·9	84·5	78·9	80·9	77·1	70·1	75·1	86·5	76·9	81·7	63·7	60·5	62·2	07·8	99·6	02·6
20	82·7	77·8	80·2	87·2	84·4	85·6	80·7	65·1	70·2	76·9	*72·9*	*74·2*	63·6	48·2	55·5	99·6	95·4	97·7
21	83·6	78·9	82·4	89·0	87·1	88·0	89·5	80·7	86·5	85·6	74·1	79·4	50·5	47·9	*49·1*	95·4	81·1	87·9
22	81·9	77·6	80·3	89·9	86·6	87·9	84·6	75·3	77·9	91·8	85·6	88·7	80·9	48·6	64·0	81·1	69·7	73·8
23	84·6	81·3	83·1	89·6	83·5	87·5	79·4	75·8	77·2	96·4	91·7	93·8	81·6	66·4	73·4	77·7	71·1	73·2
24	83·3	78·3	80·1	83·5	79·5	80·7	84·0	79·4	82·4	97·7	95·4	96·5	68·0	57·2	61·8	83·6	77·1	81·4
25	89·3	83·0	86·6	82·0	80·3	81·0	86·3	80·0	83·5	95·3	90·2	92·5	62·5	50·9	57·1	77·1	57·1	65·3
26	89·2	76·5	84·0	82·6	81·4	81·9	86·8	84·7	85·6	89·8	83·7	86·8	71·3	58·3	65·1	66·8	61·0	64·2
27	85·0	75·1	78·8	81·9	75·3	79·6	93·7	84·1	87·1	83·6	82·0	82·4	70·2	64·6	66·2	81·7	64·0	72·1
28	86·9	79·1	83·8	75·3	55·9	62·9	*96·2*	93·7	*95·2*	94·4	82·1	89·3	68·9	65·9	67·5	94·9	81·7	87·6
29	83·0	79·1	81·0	64·0	*54·7*	*58·7*	95·2	89·5	92·2	96·6	94·3	95·5	70·0	67·0	68·3	94·9	81·2	89·8
30	81·9	70·0	75·2	70·0	63·9	66·7	90·3	87·2	88·9	96·4	95·1	95·7	69·7	62·7	66·0	85·9	74·4	82·6
31	88·3	80·6	84·1	77·9	69·8	74·4				98·9	96·1	98·2				78·7	66·7	71·5
Mean	87·47	81·45	84·42	82·32	77·14	79·61	82·50	75·24	78·96	94·52	89·71	92·07	80·91	71·85	76·19	88·02	77·69	82·84
									Annual	87·68	80·35	84·02						

PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

94 ESKDALEMUIR: h_b = 237·3 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	85·95	85·89	85·90	85·97	85·90	85·89	85·88	86·00	86·22	*86·57*	86·49	86·38	85·92	85·60	85·33	85·18	85·13	85·15	85·06	85·05	85·09	85·01	84·89	*84·88*	84·89	85·62
Feb.	82·51	82·39	82·29	82·13	81·85	81·68	*81·50*	81·61	81·82	82·04	82·08	82·28	82·42	82·46	82·51	82·67	82·81	82·91	83·24	83·47	*83·55*	83·50	83·54	83·44	83·31	82·55
Mar.	86·99	86·91	86·76	86·60	*86·50*	*86·50*	86·57	86·75	86·91	87·03	87·01	87·07	86·97	86·84	86·68	86·61	86·52	86·63	86·94	87·13	87·36	87·45	*87·54*	87·49	87·48	86·92
Apr.	89·33	89·26	89·00	88·95	88·77	88·81	88·91	89·17	89·33	*89·39*	89·25	89·07	89·07	88·89	88·64	88·38	88·30	*88·29*	88·32	88·54	88·86	89·09	89·12	89·12	89·07	88·91
May	*88·93*	88·77	88·57	88·44	88·25	88·33	88·38	88·44	88·45	88·47	88·23	88·03	87·76	87·63	87·38	87·22	*87·05*	87·07	87·19	87·46	87·78	88·06	88·17	88·14	88·05	87·99
June	81·65	81·53	81·36	81·21	*81·18*	81·22	81·36	81·47	81·57	81·59	81·49	81·50	81·49	81·53	81·53	81·59	81·59	81·64	81·83	82·05	82·25	82·51	82·68	82·66	*82·70*	81·71
July	*84·85*	84·70	84·40	84·17	*84·11*	84·20	84·22	84·40	84·45	84·41	84·31	84·37	84·33	84·32	84·40	84·34	84·33	84·28	84·25	84·40	84·62	84·85	84·80	84·75	84·70	84·42
Aug.	*80·15*	80·01	79·80	79·58	79·42	*79·40*	79·44	79·55	79·58	79·61	79·44	79·43	79·41	79·43	79·41	79·47	79·43	79·45	79·50	79·68	79·88	79·95	79·95	79·92	79·81	79·61
Sept.	79·02	78·99	78·95	78·75	78·64	*78·50*	78·64	78·76	78·91	79·10	78·96	79·03	79·02	79·00	78·95	78·87	78·78	78·71	78·83	79·02	79·22	79·34	79·32	*79·45*	79·43	78·96
Oct.	91·94	91·87	91·76	91·70	*91·67*	91·72	91·75	92·12	92·37	*92·52*	92·46	92·39	92·21	92·01	91·90	91·73	91·71	91·93	92·16	92·30	92·34	92·37	92·33	92·25	92·13	92·07
Nov.	*77·21*	77·04	76·91	76·66	76·56	76·53	76·51	76·64	76·72	76·73	76·39	76·19	75·78	75·46	76·25	*75·22*	75·30	75·53	75·74	75·85	75·99	76·21	76·29	76·28	76·30	76·19
Dec.	82·92	82·80	82·77	82·63	82·45	82·43	*82·43*	82·51	82·73	82·87	82·97	82·90	82·67	82·54	82·54	82·57	82·73	82·95	83·06	83·23	83·30	*83·33*	83·32	83·30	83·24	82·84
Annual	84·33	84·22	84·08	83·94	83·82	83·81	83·85	84·00	84·13	84·24	84·13	84·10	83·96	83·85	83·75	83·69	*83·68*	83·75	83·88	84·05	84·22	84·34	*84·36*	84·34	84·29	84·02

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

95 ESKDALEMUIR: h_b = 237·3 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	15·52	15·46	15·49	15·57	15·51	15·51	15·49	15·63	15·85	*16·18*	16·00	15·78	15·23	14·87	14·58	14·45	14·48	14·58	14·51	14·52	14·57	14·49	14·37	*14·36*	14·39	15·23
Feb.	11·67	11·55	11·49	11·33	11·04	10·91	*10·72*	10·84	11·01	11·14	11·07	11·20	11·29	11·29	11·36	11·56	11·73	11·92	12·33	12·62	12·75	12·71	*12·79*	12·69	12·56	11·64
Mar.	16·46	16·40	16·28	16·12	16·04	16·05	16·13	16·28	16·36	16·34	16·14	16·09	15·92	15·75	15·58	15·51	*15·46*	15·67	16·08	16·37	16·68	16·82	*16·93*	16·91	16·88	16·19
Apr.	*18·50*	18·49	18·24	18·21	18·06	18·12	18·23	18·35	18·35	18·22	17·95	17·67	17·61	17·38	17·13	*16·85*	16·87	16·89	17·01	17·39	17·85	18·12	18·21	18·25	18·24	17·81
May	*18·06*	17·92	17·75	17·64	17·47	17·52	17·43	17·31	17·12	16·98	16·63	16·35	16·01	15·82	15·55	15·41	*15·29*	15·37	15·64	16·06	16·57	16·96	17·15	17·19	17·14	16·69
June	10·28	10·18	10·04	09·93	09·90	09·87	09·87	09·83	09·82	09·75	09·60	09·55	*09·49*	09·52	09·53	09·60	09·61	09·69	09·95	10·24	10·53	10·93	11·21	11·24	*11·34*	10·03
July	*13·21*	13·07	12·78	12·55	12·51	12·59	12·54	12·63	12·55	12·42	12·29	12·32	12·22	*12·19*	12·27	12·26	12·23	12·21	12·22	12·44	12·76	13·06	13·08	13·07	13·05	12·55
Aug.	*08·53*	08·42	08·21	08·00	07·85	07·85	07·85	07·84	07·72	07·62	07·38	07·31	07·25	07·26	*07·23*	07·30	07·29	07·37	07·47	07·77	08·08	08·22	08·27	08·27	08·18	07·76
Sept.	07·30	07·29	07·27	07·09	06·99	06·83	06·97	07·05	07·24	07·25	07·02	07·05	07·01	06·95	06·91	06·82	06·76	*06·73*	06·92	07·17	07·42	07·57	07·55	07·71	*07·72*	07·13
Oct.	21·04	20·98	20·86	20·81	20·81	20·86	20·91	21·28	21·47	*21·49*	21·33	21·19	20·93	20·70	20·58	*20·44*	20·48	20·81	21·15	21·35	21·40	21·44	21·41	21·35	21·26	21·05
Nov.	*05·89*	05·71	05·59	05·34	05·24	05·22	05·21	05·38	05·45	05·41	04·99	04·73	04·27	03·92	03·70	*03·68*	03·83	04·11	04·33	04·45	04·61	04·85	04·93	04·93	04·97	04·80
Dec.	12·28	12·15	12·14	12·00	11·82	11·80	11·79	11·86	12·07	12·20	12·24	12·11	11·81	*11·66*	11·67	11·74	11·95	12·22	12·34	12·52	12·61	12·64	12·13	*12·67*	12·62	12·13
Annual	*13·27*	13·17	13·05	12·92	12·81	12·80	12·80	12·90	12·95	12·95	12·76	12·65	12·45	12·31	12·21	*12·16*	12·19	12·33	12·52	12·77	13·02	13·19	13·24	13·25	13·23	12·78

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

96 ESKDALEMUIR: Louvered hut: h_t = 0·9 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	degrees Absolute																									
Jan.	73·12	73·00	72·87	72·86	72·66	72·65	72·72	*72·54*	72·63	72·87	73·79	74·69	75·35	*75·67*	*75·77*	75·51	74·84	74·16	73·90	73·71	73·57	73·63	73·62	73·64	73·42	73·75
Feb.	75·81	75·75	75·47	75·40	75·33	*75·00*	75·02	75·02	75·39	76·27	77·33	78·07	78·55	*78·91*	78·78	78·47	78·16	77·39	76·67	76·29	75·81	75·67	75·33	75·28	75·26	76·45
Mar.	74·28	74·09	73·70	73·65	73·49	73·41	*73·38*	73·59	74·42	75·69	77·39	78·45	79·01	79·31	*79·42*	79·39	79·01	78·18	77·27	76·43	75·66	75·33	75·12	74·87	74·67	76·03
Apr.	77·49	77·02	76·83	76·67	76·33	*76·13*	76·16	77·37	78·98	80·74	81·92	82·92	83·50	*83·95*	83·91	83·89	83·01	82·59	81·78	80·24	79·13	78·77	78·26	77·89	77·50	79·81
May	77·87	77·63	77·30	77·05	*76·91*	77·05	78·41	80·12	82·05	83·55	84·51	85·33	85·95	*86·57*	86·57	86·45	85·83	85·22	83·80	82·42	80·68	79·71	78·93	78·34	77·92	81·59
June	80·35	80·14	79·80	79·39	*79·36*	80·01	81·42	82·86	83·89	84·77	85·29	85·85	86·37	*86·54*	86·41	86·29	86·14	85·84	85·27	84·69	83·85	82·55	81·61	81·13	80·50	83·33
July	83·73	83·46	83·33	83·19	*83·09*	83·18	83·80	84·73	86·11	86·96	87·23	87·53	88·09	88·35	88·29	*88·36*	87·96	87·64	87·32	86·59	85·69	85·04	84·40	84·05	83·67	85·75
Aug.	82·22	81·86	81·78	81·67	81·49	*81·37*	81·75	82·90	84·25	85·53	86·22	86·89	87·30	87·38	*87·46*	87·28	87·02	86·46	85·92	84·82	83·84	83·18	82·69	82·42	82·20	84·32
Sept.	82·78	82·64	82·40	82·19	*82·13*	82·22	82·28	82·56	83·35	84·00	84·95	85·26	85·64	*85·96*	85·84	85·92	85·63	85·18	84·61	84·01	83·62	83·46	83·40	83·16	82·86	83·89
Oct.	78·81	78·74	78·80	78·70	78·49	78·42	*78·29*	78·29	79·02	80·30	81·16	81·92	82·45	82·73	*82·78*	82·51	81·89	80·87	79·96	79·47	79·32	79·23	79·10	78·87	78·65	80·00
Nov.	78·69	78·80	78·64	78·55	78·50	78·47	78·35	*78·04*	78·12	78·62	79·28	79·74	80·16	*80·33*	80·28	80·18	79·61	79·27	79·14	79·09	78·95	78·86	78·83	78·75	78·59	79·05
Dec.	74·12	74·19	74·09	74·01	73·92	*73·89*	74·00	74·09	74·30	74·41	74·95	75·49	76·01	*76·20*	76·07	75·78	75·29	75·01	74·88	74·80	74·69	74·43	74·27	74·13	74·05	74·71
Annual	78·27	78·11	77·92	77·78	*77·65*	77·66	77·97	78·52	79·39	80·33	81·18	81·86	82·38	*82·67*	82·65	82·52	82·05	81·50	80·89	80·23	79·58	79·17	78·81	78·55	78·28	79·90

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0° is printed 75·0°. Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

97 ESKDALEMUIR: Louvered hut: ^{h}t (height of thermometer bulb above ground) = 0·9 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
									degrees Absolute									
1	73·8	68·4	71·8	80·2	76·3	78·0	78·0	61·6	*68·6*	91·5	73·5	81·6	83·7	75·9	80·2	86·5	77·5	81·2
2	73·2	64·7	68·3	79·6	73·8	77·7	77·3	*61·0*	69·5	90·4	70·6	80·5	88·8	74·1	81·7	89·1	76·4	82·8
3	73·4	64·1	69·4	80·1	75·9	78·4	74·3	71·2	72·8	*93·0*	72·9	*83·2*	90·6	73·2	82·7	86·6	76·1	82·5
4	81·1	73·4	78·7	78·0	75·5	76·9	74·9	72·1	73·7	88·4	77·4	82·2	90·0	72·4	82·6	84·2	75·0	81·2
5	80·2	75·8	78·1	80·7	75·1	78·1	75·2	73·5	74·2	83·9	73·3	79·3	82·5	74·8	78·9	85·7	81·0	83·3
6	79·9	72·2	77·0	81·1	74·4	77·8	78·6	72·4	74·4	85·2	72·3	78·8	85·0	74·0	78·8	87·7	79·0	83·5
7	78·3	73·7	76·6	82·3	77·4	80·0	77·3	68·2	73·0	82·2	77·0	79·5	84·4	76·3	80·5	87·9	75·3	82·5
8	80·1	75·8	77·5	79·2	75·1	77·8	78·0	67·0	72·7	83·6	74·0	80·1	86·9	74·0	80·9	89·1	73·9	82·2
9	80·7	75·4	78·6	80·5	73·9	76·5	75·5	70·0	72·9	82·9	69·1	*76·6*	89·4	73·6	81·1	89·3	*72·8*	82·1
10	80·8	77·0	78·8	81·0	78·5	79·5	76·4	63·2	70·1	83·2	*68·4*	76·7	92·4	72·8	83·2	85·3	77·8	82·3
11	*81·3*	77·1	79·3	81·1	79·3	80·1	74·8	66·3	71·9	81·3	75·8	79·4	90·7	75·0	82·2	86·5	75·6	*80·1*
12	79·2	73·9	77·3	80·4	75·9	78·0	75·8	73·5	74·8	84·4	79·7	81·4	89·1	72·0	80·8	88·8	74·9	82·2
13	76·1	67·1	72·1	84·4	78·7	81·0	75·9	72·8	74·6	85·3	74·6	81·5	83·3	75·0	78·4	88·4	74·0	82·1
14	73·2	64·4	67·7	81·0	77·9	79·6	75·1	71·8	72·8	88·0	74·7	81·1	83·1	70·8	77·1	87·8	80·2	82·8
15	73·6	61·5	67·0	81·1	77·6	79·3	74·6	71·1	72·3	87·5	75·0	81·4	84·7	69·8	77·7	85·1	80·3	82·3
16	72·7	*61·4*	*65·9*	*85·0*	71·1	79·6	76·1	70·2	72·7	86·9	73·2	79·6	85·3	*67·8*	*76·9*	86·6	80·4	83·1
17	73·1	63·2	69·9	82·1	71·9	78·3	79·7	70·4	73·6	85·1	76·1	80·7	85·1	73·4	78·3	86·4	78·6	82·8
18	74·8	70·0	72·2	82·9	80·0	*81·1*	81·4	79·1	80·3	85·1	75·3	79·9	87·3	75·0	80·8	85·2	77·1	81·9
19	74·0	70·9	72·8	80·6	74·1	78·3	80·8	79·0	80·1	85·8	70·8	79·4	87·3	78·6	82·2	85·4	75·9	81·1
20	73·2	62·8	68·0	77·3	72·9	74·5	81·1	78·7	80·0	82·5	76·8	80·0	86·4	76·6	80·4	90·0	73·4	82·8
21	75·8	63·0	69·0	75·4	70·0	72·7	83·0	77·4	79·5	85·0	75·7	79·5	88·1	79·2	82·7	90·5	77·0	85·1
22	75·8	69·4	73·4	79·8	71·6	76·5	82·4	74·2	78·1	84·2	74·0	79·9	87·7	76·0	82·2	97·7	83·0	*90·4*
23	74·0	70·2	72·7	80·1	69·0	75·4	81·3	71·7	75·9	83·8	75·9	80·2	91·8	76·0	83·9	93·5	84·2	88·6
24	79·4	71·4	74·6	77·1	65·0	71·0	81·8	72·3	77·0	82·0	75·0	77·5	88·9	79·4	83·7	89·3	79·7	85·9
25	81·0	77·9	*79·3*	76·7	61·5	68·7	84·7	76·6	80·2	83·2	74·4	78·3	88·5	79·0	83·1	89·6	79·0	84·4
26	81·0	70·1	76·8	75·6	63·6	68·7	84·2	75·0	80·3	83·5	76·7	79·3	90·3	79·6	83·8	88·4	79·9	84·8
27	75·4	67·5	71·8	75·2	*59·8*	*68·4*	86·5	70·8	78·2	81·3	77·5	79·1	86·9	82·4	84·4	88·0	76·9	83·1
28	79·9	75·1	77·7	76·0	61·8	68·8	91·6	71·6	82·2	85·1	76·3	79·5	90·7	79·0	85·7	88·0	78·2	83·3
29	76·1	73·0	74·5				89·4	79·3	83·2	84·8	76·0	79·5	92·5	79·5	*86·4*	86·7	81·4	84·4
30	75·9	73·2	74·5				91·4	79·4	*84·4*	80·6	77·1	78·7	*93·9*	78·7	86·1	88·8	82·7	85·3
31	80·5	71·0	75·0				*91·7*	75·9	82·9				86·1	79·0	82·1			
Mean	77·0	70·1	73·7	79·8	72·8	76·5	80·3	72·2	76·0	85·0	74·6	79·8	87·8	75·6	81·6	88·1	77·9	83·3

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
									degrees Absolute									
1	89·4	83·8	86·6	87·5	81·7	84·5	89·0	78·0	83·4	*89·1*	83·6	*85·8*	80·4	75·0	77·9	79·6	75·4	77·1
2	87·5	83·7	86·3	90·0	83·8	86·2	87·9	80·3	83·9	87·7	82·0	85·0	79·4	72·0	*75·5*	79·2	73·2	76·6
3	91·4	80·6	86·9	90·0	82·9	85·6	88·2	78·7	84·1	87·6	82·8	84·7	85·3	76·1	81·7	76·0	73·4	74·5
4	92·0	84·1	87·7	90·2	83·1	86·2	89·0	85·0	86·1	84·6	80·4	82·3	*88·0*	84·8	*85·6*	78·0	68·5	74·8
5	87·1	81·7	84·3	*91·4*	85·8	*87·8*	89·1	84·6	85·8	86·2	80·2	83·3	85·5	84·8	85·1	76·1	66·4	71·9
6	88·7	81·6	84·6	88·3	84·3	86·5	87·6	79·2	84·6	85·0	73·8	79·4	86·0	83·3	85·0	78·4	67·6	74·2
7	93·1	79·4	85·9	88·7	79·2	84·0	88·1	77·5	83·3	85·4	73·2	79·4	83·4	78·1	81·0	76·1	71·0	73·9
8	*95·7*	79·5	88·3	87·2	77·9	83·3	87·5	82·0	84·5	84·3	74·1	79·8	79·8	77·5	78·2	76·1	72·9	74·8
9	93·3	79·9	87·7	87·5	81·2	84·1	87·2	79·7	83·1	84·2	79·6	81·7	80·3	73·4	78·2	76·2	70·0	74·3
10	93·0	79·4	86·9	88·2	81·8	84·7	86·3	78·9	82·8	86·0	76·6	81·5	82·1	75·2	79·0	74·8	68·4	71·2
11	93·9	*76·4*	87·1	88·9	81·1	84·5	87·4	78·3	84·1	86·6	77·0	81·4	80·4	70·1	76·4	77·3	73·7	75·7
12	95·4	82·6	*89·1*	86·7	82·2	84·1	88·0	*76·8*	83·0	87·9	79·1	81·1	82·6	79·0	80·3	77·5	71·3	74·4
13	93·4	81·9	86·7	89·6	81·3	84·7	83·9	80·5	82·7	82·0	80·2	81·0	80·3	73·3	77·2	76·3	74·7	75·7
14	88·8	81·7	84·1	88·7	78·9	83·5	86·8	80·5	83·5	80·5	77·7	79·3	77·2	74·9	76·1	78·2	75·9	77·1
15	82·8	80·6	*81·7*	85·4	76·8	*81·5*	86·8	81·1	83·5	80·8	77·5	78·8	77·4	73·9	75·6	76·2	69·2	73·1
16	89·9	80·9	84·5	89·0	*73·4*	82·3	86·4	82·8	84·4	81·2	78·0	79·4	79·2	76·4	77·7	73·6	69·2	71·9
17	87·4	82·8	84·8	88·3	75·4	82·4	85·3	80·7	83·4	81·1	78·0	79·4	80·4	76·8	78·3	75·7	70·9	73·6
18	86·2	83·0	84·4	86·6	76·1	82·5	83·2	81·0	81·8	83·6	77·8	80·4	79·8	75·8	78·3	75·2	67·6	71·1
19	88·9	82·8	85·0	88·1	79·8	83·6	84·6	80·0	*81·8*	82·4	77·9	80·8	78·9	75·9	77·5	77·5	67·5	74·1
20	87·5	83·9	85·1	89·0	77·9	83·6	85·9	79·8	81·8	86·0	81·1	83·4	82·3	75·2	78·9	75·3	72·4	74·2
21	87·9	82·6	84·7	89·4	78·7	84·3	86·1	81·3	83·1	83·9	81·0	82·9	81·1	77·9	79·3	79·2	72·4	75·4
22	88·0	83·8	85·7	91·2	82·5	85·9	88·0	80·9	85·0	83·4	79·6	80·7	78·9	70·5	76·3	80·4	76·4	*79·5*
23	87·4	86·2	86·8	89·4	81·9	86·2	84·6	78·2	81·8	82·3	74·0	79·1	82·9	*69·7*	77·7	76·4	72·5	74·8
24	90·9	83·3	87·3	90·1	83·3	86·2	85·1	79·0	82·2	80:7	75·0	77·1	83·5	78·9	81·4	75·2	65·9	*70·9*
25	89·4	81·6	85·8	90·2	76·5	84·3	86·2	83·4	84·8	78·8	73·2	75·9	81·4	78·4	80·3	*81·0*	76·5	78·3
26	90·3	82·6	86·6	90·1	73·9	81·8	87·9	85·5	*86·7*	81·1	70·1	75·2	80·4	77·3	79·3	77·6	73·7	76·1
27	88·7	83·9	85·6	89·3	73·7	81·7	88·0	85·0	86·1	81·3	74·4	78·5	80·9	77·0	79·2	78·3	74·3	76·8
28	87·5	83·2	84·7	89·7	78·8	83·8	*23·9*	82·4	86·7	79·7	69·6	76·1	82·1	78·3	79·8	80·4	69·7	76·8
29	87·3	82·0	84·1	87·6	83·3	84·9	88·3	81·3	84·0	82·2	*68·9*	*73·7*	78·6	74·1	76·9	77·7	*65·8*	72·6
30	88·9	81·9	85·1	86·8	83·5	84·7	89·7	80·2	84·5	80·3	69·2	75·3	80·7	75·7	77·9	78·9	74·0	76·3
31	88·1	82·0	84·2	89·0	80·7	84·6				79·7	74·8	77·9				75·8	73·9	74·4
Mean	89·7	82·1	85·7	88·8	80·1	84·3	87·2	80·7	83·9	83·4	76·8	80·0	81·3	76·3	79·1	77·2	71·4	74·7
									Annual	83·8	75·9	79·9						

MEAN RELATIVE HUMIDITY AND VAPOUR PRESSURE FOR EACH DAY

Mean percentages from readings at exact hours 0h. to 24h.; vapour pressure from daily mean temperature and relative humidity

98 ESKDALEMUIR: Louvered hut: h_t = 0·9 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.
	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.
1	81·2	4·5	89·1	7·8	74·6	*3·3*	77·3	8·6	77·9	8·0	82·9	9·0	92·8	14·5	84·9	11·5	90·8	11·5	94·0	*13·9*	91·7	7·9	86·2	7·1
2	88·0	3·8	90·6	7·7	85·0	4·0	73·5	7·6	70·3	7·9	79·2	9·6	*98·6*	15·1	87·2	13·2	91·2	11·9	92·3	12·9	86·4	6·3	83·0	6·6
3	93·4	4·4	91·5	8·2	90·5	5·4	69·5	8·7	63·4	7·6	77·1	9·2	82·3	13·1	83·3	12·2	91·0	12·0	*97·2*	13·4	97·1	10·9	89·6	6·1
4	93·1	8·5	83·8	6·8	94·5	6·1	81·3	9·5	62·0	7·4	*94·0*	10·2	87·9	14·7	94·5	14·3	92·8	14·0	84·0	9·8	94·5	13·8	*76·2*	5·3
5	88·7	7·8	81·6	7·2	91·1	6·1	*57·5*	5·5	67·0	6·2	88·0	11·0	85·7	11·5	93·9	*15·8*	96·6	14·3	85·9	10·8	*98·2*	*13·8*	90·6	5·1
6	90·7	7·4	87·7	7·6	80·0	5·4	69·7	6·4	67·9	6·3	72·0	9·1	80·7	11·0	90·3	14·0	90·0	12·3	82·1	7·9	97·1	13·6	83·7	5·6
7	97·9	7·7	85·9	8·6	76·4	4·7	*93·9*	9·1	76·3	7·9	77·3	9·2	83·3	12·4	88·3	11·6	93·8	11·8	82·3	7·9	82·7	8·9	89·1	5·8
8	86·2	7·3	78·0	6·7	84·6	5·1	74·9	7·6	65·0	6·9	82·7	9·6	80·5	14·0	93·3	11·7	90·2	12·2	88·0	8·7	79·2	7·0	93·4	6·5
9	92·5	8·4	71·2	5·6	92·3	5·6	63·5	*5·0*	65·8	7·1	81·9	9·5	76·5	12·8	89·9	11·9	84·7	10·5	82·7	9·3	77·0	6·8	90·9	6·1
10	85·2	7·9	82·7	8·0	81·8	4·0	63·8	5·1	59·8	7·4	83·5	9·8	*71·4*	11·3	84·4	11·6	95·2	11·5	83·0	9·2	*76·0*	7·1	91·3	4·9
11	89·3	8·5	88·2	8·9	89·2	5·0	81·7	7·9	76·1	8·9	86·0	*8·7*	75·7	12·2	84·9	11·5	89·7	11·8	74·5	8·2	86·9	6·8	90·1	6·7
12	83·9	7·0	*93·4*	8·1	85·2	5·9	87·4	*9·6*	77·7	8·2	77·5	9·0	76·6	14·0	92·8	12·3	94·6	11·6	84·4	9·1	90·1	9·2	90·0	6·1
13	*79·6*	4·6	88·8	*9·5*	89·8	6·2	78·9	8·8	75·2	6·7	81·5	9·4	74·6	11·7	80·3	11·0	87·4	10·5	82·5	8·9	76·6	6·3	94·8	7·0
14	88·5	3·7	84·7	8·3	80·3	4·8	83·7	9·0	62·8	5·1	84·8	10·3	80·8	10·7	85·5	10·9	91·8	11·7	82·3	7·9	81·7	*6·2*	95·3	7·8
15	91·0	3·6	86·3	8·2	79·9	4·6	84·3	9·3	*56·4*	*4·8*	82·8	9·7	91·7	*10·3*	*95·2*	10·6	*79·6*	10·1	79·4	7·3	84·6	6·2	81·0	5·0
16	91·6	*3·3*	82·5	8·0	71·3	4·3	90·8	8·9	75·8	6·1	87·6	10·8	76·2	10·3	79·0	*9·3*	86·5	11·7	82·5	7·9	92·0	7·9	82·7	*4·7*
17	92·2	4·5	83·2	7·4	94·7	6·0	71·8	7·5	87·2	7·8	83·3	10·1	87·7	12·1	86·3	10·2	85·4	10·8	81·2	7·8	93·1	8·3	83·2	5·3
18	82·6	4·8	86·1	9·3	96·6	9·9	68·5	6·8	76·1	8·1	77·9	8·9	91·3	12·3	89·9	10·1	89·5	10·1	78·8	8·1	87·0	7·8	88·2	4·7
19	90·8	5·5	79·2	7·1	*98·3*	9·9	77·7	7·5	61·3	7·1	84·0	9·1	94·1	13·2	94·3	12·1	81·3	*9·2*	91·6	9·7	90·3	7·6	89·4	5·9
20	91·7	3·9	78·9	5·4	96·8	9·7	87·1	8·7	81·7	8·4	77·6	9·4	89·4	12·6	81·2	10·4	82·1	9·3	96·5	12·2	91·8	8·5	89·6	6·0
21	91·3	4·2	*62·7*	3·7	86·5	8·4	68·4	6·6	77·7	9·4	*67·5*	9·5	83·4	11·5	85·6	11·5	84·4	10·4	95·5	11·7	91·1	8·7	94·7	6·9
22	87·3	5·5	81·6	6·4	86·4	7·6	80·2	8·0	71·3	8·3	73·5	14·6	94·0	13·8	85·6	12·7	90·1	12·6	87·9	9·2	82·3	6·4	*95·8*	*9·3*
23	95·3	5·7	72·8	5·3	81·7	6·2	76·5	7·8	70·3	9·2	87·2	*15·5*	87·9	*15·4*	87·7	13·3	82·0	9·3	87·7	8·3	95·5	8·2	90·2	6·3
24	92·3	6·3	69·5	3·7	80·0	6·5	80·5	6·8	74·2	9·5	80·7	12·0	81·7	13·3	93·4	14·2	85·7	10·0	76·1	6·2	95·2	10·5	91·3	4·8
25	*99·1*	9·5	72·0	*3·2*	77·1	7·8	81·0	7·2	71·8	8·9	77·6	10·5	85·2	12·6	*77·8*	10·4	93·7	13·0	75·3	5·7	92·3	9·4	92·0	8·2
26	92·0	7·4	76·7	3·4	87·4	8·9	80·8	7·6	84·5	10·9	83·2	11·5	85·7	13·4	84·7	9·6	95·7	*15·0*	79·0	5·7	93·8	9·0	87·4	6·7
27	97·7	5·5	80·6	3·5	79·8	7·1	88·0	8·3	*90·1*	*12·1*	88·6	11·0	91·9	13·4	86·7	9·8	*97·0*	14·6	76·5	6·9	92·9	8·8	84·1	6·7
28	90·8	7·8	81·9	3·7	*59·7*	6·9	80·1	7·8	72·3	10·6	88·4	11·1	87·6	12·0	89·7	11·7	87·8	13·8	*70·6*	*5·4*	97·5	9·6	80·3	6·4
29	89·3	6·1			71·2	8·9	86·1	8·3	67·4	10·4	93·8	12·6	85·1	11·2	91·3	12·7	92·4	12·1	84·2	5·4	95·2	7·7	93·3	5·5
30	86·8	5·9			75·5	*10·2*	90·6	8·3	79·2	11·9	74·1	10·6	89·1	12·6	93·5	12·9	90·9	12·3	90·8	6·5	89·8	7·8	88·3	6·8
31	93·7	6·6			79·0	9·6			85·0	9·8			81·2	10·8	90·9	12·4			90·4	7·8			91·9	6·2
Mean*	90·1	6·1	81·8	6·7	83·8	6·6	78·3	7·8	72·6	8·2	81·9	10·3	85·2	12·6	87·9	11·9	89·5	11·7	84·5	8·7	89·3	8·6	88·6	6·2

* Mean of the column.

RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

99 ESKDALEMUIR: h_t = 0·9 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	per cent.																									
Jan.	91·6	92·0	92·0	92·5	*92·7*	92·2	91·2	92·0	91·5	91·5	90·3	88·3	86·5	85·5	85·2	*85·1*	87·4	89·1	89·7	90·1	91·0	91·0	92·0	92·1	92·0	90·1
Feb.	86·4	85·7	86·5	86·6	86·5	87·6	88·1	88·0	*88·4*	85·5	80·5	77·0	73·2	*70·3*	71·0	72·2	73·1	76·9	79·6	81·7	82·7	84·1	85·9	86·4	86·2	81·8
Mar.	89·7	90·2	90·3	90·8	90·4	90·9	91·4	*91·8*	89·1	86·5	80·5	75·5	74·5	72·2	*71·0*	72·0	73·7	76·5	79·4	83·2	86·3	88·3	88·1	88·8	89·5	83·8
Apr.	90·2	90·0	*90·8*	90·1	90·3	90·5	89·7	87·9	80·4	75·7	67·9	63·7	61·6	*60·3*	61·0	61·2	65·5	69·2	71·4	78·8	82·5	84·8	86·5	89·0	90·2	78·3
May	87·7	87·5	88·9	90·0	*90·3*	90·1	84·0	79·7	69·2	65·0	61·0	56·7	55·7	*51·9*	52·5	52·5	55·2	58·2	64·0	70·8	77·5	81·2	84·7	87·2	87·8	72·6
June	92·2	92·6	91·6	93·6	*93·7*	92·2	90·0	86·1	80·7	77·3	75·0	72·0	*69·7*	69·8	71·4	71·7	72·7	72·8	75·4	77·8	82·6	86·3	88·8	89·1	92·0	81·9
July	92·7	92·9	93·7	94·3	*95·7*	95·4	93·9	90·6	83·3	79·7	78·2	76·5	74·7	*74·1*	75·8	75·4	77·3	77·9	78·8	82·9	86·8	89·7	91·6	92·6	92·5	85·2
Aug.	95·5	96·5	95·9	96·3	*96·9*	96·7	95·3	92·8	89·9	83·0	81·5	78·0	75·5	76·1	*75·1*	76·7	78·7	81·3	84·8	89·2	92·3	93·1	94·5	94·7	95·7	87·9
Sept.	92·4	92·7	93·1	93·2	93·4	93·1	93·2	*93·4*	91·4	90·8	88·1	86·3	84·5	*82·2*	83·6	83·7	83·4	87·1	89·1	90·2	89·3	89·5	91·3	92·1	92·6	89·5
Oct.	90·0	*90·1*	89·6	89·0	89·4	89·0	89·5	88·5	87·0	83·0	80·9	78·2	75·3	*73·7*	74·4	75·5	78·8	81·8	85·3	86·9	88·3	87·8	88·1	87·7	89·7	84·5
Nov.	90·8	90·9	*90·9*	90·3	90·5	90·4	89·9	90·3	90·8	89·8	88·6	87·9	86·8	*86·3*	87·5	87·0	88·3	88·4	89·3	88·3	89·9	90·2	90·3	90·2	90·7	89·3
Dec.	90·0	89·1	89·3	89·2	*90·3*	89·7	89·3	89·1	89·3	88·6	87·9	87·3	86·7	*86·2*	87·5	87·3	88·4	88·3	89·1	87·9	87·1	89·2	89·9	90·3	90·2	88·6
Annual	90·8	90·9	91·1	91·4	*91·7*	91·5	90·5	89·2	85·9	83·0	80·0	77·3	75·4	*74·1*	74·7	75·1	76·9	79·0	81·3	84·0	86·4	88·0	89·3	90·0	90·8	84·5

VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T., computed from corresponding mean values of temperature and relative humidity

100 ESKDALEMUIR: h_t = 0·9 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	millibars																									
Jan.	5·6	5·6	5·6	5·6	5·5	5·5	5·5	*5·4*	5·4	5·5	5·8	6·1	6·3	6·3	*6·3*	6·2	6·1	5·9	5·8	5·8	5·8	5·8	5·9	5·9	5·8	5·8
Feb.	6·5	6·4	6·3	6·3	6·3	*6·2*	6·2	6·2	6·4	6·6	6·7	*6·7*	6·6	6·5	6·5	6·5	6·5	6·4	6·3	6·3	6·2	6·2	6·2	6·2	6·2	6·4
Mar.	6·0	6·0	5·8	5·8	5·7	*5·7*	5·7	5·9	6·0	6·4	6·7	6·8	*7·0*	6·9	6·8	6·9	6·9	6·7	6·6	6·5	6·4	6·4	6·3	6·2	6·2	6·3
Apr.	7·6	7·3	7·3	7·2	7·0	6·9	*6·9*	7·3	7·5	8·0	7·8	7·8	7·8	7·9	8·0	8·0	8·0	*8·3*	8·1	8·0	7·8	7·8	7·7	7·7	7·6	7·7
May	7·6	7·4	7·4	7·3	*7·3*	7·3	7·5	8·0	8·0	8·3	8·3	8·1	8·3	8·1	8·2	8·1	8·2	8·3	8·3	*8·4*	8·1	8·0	7·9	7·8	7·6	7·9
June	9·5	9·4	9·1	9·0	*9·0*	9·3	9·9	10·5	10·5	10·7	10·7	10·7	10·7	10·8	*11·0*	10·9	11·0	10·8	10·8	10·7	10·7	10·7	10·3	9·9	9·6	10·2
July	11·9	11·8	11·8	*11·7*	11·8	11·9	12·2	12·5	12·6	12·7	12·7	12·7	12·8	12·9	*13·2*	13·2	13·1	13·0	12·9	12·9	12·7	12·6	12·3	12·2	11·9	12·5
Aug.	11·1	11·0	10·8	10·8	10·7	*10·7*	10·8	11·3	12·0	12·1	12·4	12·4	12·3	12·5	12·4	12·5	*12·6*	12·6	12·6	12·4	12·0	11·6	11·4	12·2	11·1	11·8
Sept.	11·2	11·1	11·0	10·8	*10·8*	10·9	10·9	11·7	11·5	11·9	12·3	12·3	12·4	12·3	12·4	*12·5*	12·2	12·4	12·2	11·9	11·4	11·3	11·5	11·4	11·3	11·7
Oct.	8·3	8·3	8·3	8·2	8·1	8·0	8·0	*7·9*	8·1	8·5	8·8	8·9	8·9	8·9	*9·0*	9·0	9·0	8·7	8·5	8·4	8·4	8·3	8·3	8·1	8·2	8·5
Nov.	8·3	8·4	8·3	8·2	8·2	8·2	8·0	*7·9*	8·0	8·2	8·5	8·6	8·8	8·8	*8·9*	8·8	8·6	8·4	8·4	8·3	8·3	8·4	8·3	8·3	8·3	8·4
Dec.	6·0	5·9	5·9	5·9	5·9	5·8	5·9	5·9	6·0	6·0	6·2	6·4	6·6	6·6	*6·7*	6·5	6·4	6·2	6·2	6·1	6·0	6·0	6·0	6·0	*5·8*	6·1
Annual	8·1	8·0	7·9	7·9	*7·8*	*7·8*	7·9	8·1	8·3	8·5	8·7	8·8	8·9	8·9	*9·0*	8·9	8·9	8·8	8·7	8·6	8·4	8·3	8·2	8·2	8·1	8·4

* Mean of values, 1,2,.....23, ½(0 + 24).

RAINFALL

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

101 ESKDALEMUIR: h_r(height of receiving surface above M.S.L.) = height of station above M.S.L. + height of surface above ground = 24·1 m. + 0·6 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	...	...	...	3·6	2·5	30	...	...	...	...	...	...	...	...	...	1·0	1·9	...
2	...	...	...	9·2	8·5	6	...	...	...	...	...	...	...	...	...	2·1	4·1	5
3	0·3	1·1	1	*14·8*	9·3	17	4·9	10·0	6	...	...	...	...	...	...	3·7	4·0	35
4	30·4	*20·5*	11	14·4	7·3	18	6·1	10·4	5	0·8	1·8	2	...	...	...	15·4	11·7	4
5	1·5	1·3	6	2·5	3·4	6	1·2	3·4	2	...	...	...	0·1	0·2	...	*35·5*	*13·5*	*70*
6	...	...	...	8·6	5·6	20	0·2	0·1	...	...	...	...	0·2	0·5	...	0·2	0·4	1
7	3·7	4·5	2	9·9	4·8	22	...	...	...	4·3	*11·8*	12	...	...	...	...	...	...
8	2·0	2·1	15	1·8	2·6	2	5·3	4·0	8	2·2	4·2	4	...	...	...	...	...	...
9	22·3	10·8	15	2·0	3·5	1	20·2	11·9	8	...	...	...	...	...	...	3·3	6·8	12
10	7·0	6·4	*30*	5·2	6·5	7	...	...	...	...	...	...	...	...	...	5·5	6·6	8
11	6·9	4·8	22	1·4	3·1	2	0·7	...	...	...	...	...	...	...	...	17·7	5·3	20
12	4·8	3·9	9	3·1	6·8	2	0·6	0·8	2	2·6	4·6	2	...	...	...	0·3	0·2	1
13	...	...	...	...	...	...	0·7	1·0	...	1·0	1·6	...	0·6	0·8	3	2·0	1·8	13
14	...	...	...	...	...	...	0·2	0·2	...	...	...	...	...	...	...	4·4	1·8	12
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...	...	...	*18·8*	7·0	*55*	6·1	2·4	*40*	5·9	5·4	6
17	...	...	...	0·1	...	...	19·9	17·4	9	2·7	1·5	24	1·2	1·4	3	2·1	1·4	32
18	0·6	1·0	2	...	...	...	14·3	*24·0*	17	...	...	...	...	...	...	4·8	4·3	13
19	0·7	1·8	1	6·7	5·8	11	17·1	20·0	17	1·0	2·3	1	...	...	...	0·7	0·6	3
20	...	...	...	0·9	1·2	4	*29·6*	14·2	*21*	3·3	11·5	3	1·4	2·2	1	0·1	...	...
21	...	...	...	...	...	...	2·4	1·6	15	0·1	...	...	0·2	0·2	...	...	...	...
22	0·1	0·2	1	12·2	*10·2*	11	6·5	5·5	7	2·0	4·3	4	...	...	...	...	...	...
23	9·0	10·0	3	4·7	4·3	*44*	3·4	5·3	12	4·7	3·4	14	...	...	...	1·0	0·6	10
24	11·1	5·5	7	...	...	...	...	...	...	6·6	7·4	13	4·6	5·0	3	1·0	1·4	3
25	*31·1*	16·4	19	...	...	...	0·1	0·2	...	...	...	...	...	...	...	...	...	...
26	9·1	6·9	3	...	...	...	0·1	0·2	...	...	...	...	...	...	...	11·8	8·9	22
27	3·6	2·2	7	0·3	0·1	1	0·2	...	...	...	...	...	5·0	1·6	30	9·8	6·5	7
28	17·8	8·3	24	...	...	...	...	...	...	...	...	...	1·4	1·7	5	3·8	2·1	30
29	7·7	10·0	16				...	...	...	...	...	...	...	...	...	30·8	12·4	15
30	1·3	1·2	3				...	...	...	...	...	...	...	...	...	...	...	...
31	21·0	8·6	25				...	...	...				*12·5*	*9·9*	26			
Total	192·0	127·5	-	101·4	85·5	-	133·7	130·2	-	50·1	61·4	-	33·3	25·9	-	162·9	101·7	-

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	0·1	0·4	...	1·5	4·0	...	2·2	1·5	7	0·2	0·2	1	1·3	1·8	1	13·7	11·5	10
2	2·9	7·7	2	3·3	9·7	1	5·0	2·5	17	0·2	0·2	1	...	...	...	9·1	10·0	5
3	...	...	...	3·7	2·8	2	6·4	6·4	3	4·2	4·8	*8*	21·8	*19·1*	6	6·8	8·7	3
4	11 5	3 8	*103*	5 0	7 5	1	5 1	6 2	6	1 5	2 1	2	17 1	15 7	13	...	...	...
5	2·5	3·0	3	2·7	7·6	6	14·2	9·1	*55*	1·2	2·2	1	4·0	4·1	2	7·3	4·1	2
6	0·1	0·2	...	4·0	4·9	7	9·2	3·1	41	...	...	...	0·5	0·7	3	...	...	...
7	...	...	...	9·7	2·2	54	4·9	5·4	3	...	...	...	2·6	1·5	11	0·1	...	...
8	...	...	...	1·7	1·4	7	7·8	2·7	24	...	...	...	1·8	3·4	1	5·7	7·1	*15*
9	...	...	...	1·5	1·7	16	0·5	0·6	1	...	...	...	0·3	0·3	...	0·1	...	...
10	...	...	...	...	...	...	*38·2*	*13·2*	15	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	1·8	1·8	6	...	...	...	...	...	...	18·2	10·6	10
12	...	...	...	8·8	*9·8*	14	20·6	6·0	25	...	...	...	7·5	6·5	5	0 1	...	...
13	...	...	...	3·1	5·6	1	24·3	9·9	9	...	...	...	0·3	0·4	1	3·7	2·2	6
14	4·8	5·7	5	16·9	5·1	*145*	12·2	8·4	5	...	...	...	1·0	3·3	1	13·5	21·7	3
15	11·4	*18·5*	4	2·1	2·3	7	3·4	1·6	22	...	...	...	0·4	0·5	1	0·8	4·1	...
16	2·5	4·7	4	0·5	0·4	1	1·5	3·7	3	...	...	...	1·1	2·0	1	...	...	...
17	7·0	8·0	7	0·3	0·4	...	6·2	3·1	27	...	...	...	16·9	14·8	7	...	...	...
18	10·1	10·2	15	4·4	6·0	1	10·2	4·7	14	...	...	...	3·1	5·8	8	...	...	...
19	1·4	1·5	15	5·7	6·4	22	0·5	0·5	1	*9·2*	*5·3*	*8*	2·8	4·6	3	0 5	...	...
20	2·7	4·4	3	...	...	...	7·8	6·0	2	3·0	2·8	6	16·8	18·2	6	...	...	...
21	6·8	6·6	3	1·6	0·9	5	0·9	0·7	3	1·3	2·0	1	*40·7*	15·6	28	9·4	12·3	7
22	3·1	9·3	3	1·2	7·0	...	26·5	12·1	18	0·7	0·8	1	4·9	3·7	3	*30·5*	18·2	9
23	4·3	12·8	1	1·4	1·0	7	1·4	0·3	9	0·9	1·4	1	14·0	11·6	3	1·8	4·2	2
24	7·6	5·3	14	2·8	3·4	14	0·1	0·1	...	...	...	...	24·0	8·8	33	...	...	...
25	...	...	...	...	...	...	3·0	3·8	2	...	...	...	34·5	15·0	*50*	27·9	15·3	10
26	2·0	2·7	1	0·8	0·6	2	15·1	10·4	9	...	...	...	7·5	12·9	7	1·4	4·1	1
27	4·4	4·9	10	...	...	...	6·3	7·1	2	...	...	...	19·0	12·1	8	...	...	...
28	8·0	6·9	4	*24·2*	9·1	16	...	...	...	...	...	...	16·9	7·7	8	0·4	0·5	...
29	4·2	2·7	8	20·9	8·1	45	...	...	...	...	...	...	...	...	...	5·0	4·5	3
30	*17·5*	12·2	19	20·9	7·5	43	5·3	2·3	14	...	...	...	11·3	11·4	8	1·6	1·4	3
31	1·4	0·9	5	10·1	6·7	27				...	...	...				10·8	5·9	3
Total	116·3	132·4	-	158·8	122·1	-	240·6	133·2	-	22·4	21·8	-	272·1	201·5	-	168·4	146·4	-

RAINFALL

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

102 ESKDALEMUIR: h_r = 242·0 m. + 0·4 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	millimetres																								
Jan.	6·6	9·6	10·5	7·2	7·6	5·6	5·5	5·4	3·2	4·4	6·4	6·8	8·1	5·6	9·3	10·4	13·4	*13·8*	7·6	7·1	7·4	8·9	10·1	11·5	192·0
Feb.	0·7	2·3	1·0	2·8	2·2	6·9	8·2	3·2	5·0	9·8	3·6	2·8	0·8	1·0	3·3	2·2	5·0	3·9	3·3	6·1	4·0	9·4	*10·0*	3·9	101·4
Mar.	3·9	6·8	7·2	4·6	4·5	8·0	6·8	8·4	7·4	*11·8*	7·5	7·6	9·7	5·0	2·1	2·6	2·6	3·8	4·6	2·7	3·8	4·5	2·5	5·3	133·7
Apr.	1·1	0·8	3·4	2·7	1·3	1·7	1·9	1·4	1·8	1·0	0·7	0·2	0·6	0·5	0·5	1·5	3·4	*6·8*	6·0	2·0	3·5	6·1	0·7	0·5	50·1
May	1·6	1·0	2·2	2·3	0·5	3·5	0·2	0·6	1·9	0·2	0·2	1·4	0·2	0·9	2·1	2·8	*5·2*	3·2	1·2	0·8	0·5	0·3	0·5	0·0	33·3
June	2·7	2·7	11·5	2·9	5·3	8·2	6·9	4·5	3·4	6·2	7·4	2·9	4·7	13·7	13·4	*15·4*	14·3	11·0	10·1	8·3	3·0	1·3	1·2	1·9	162·9
July	2·3	1·6	3·7	4·6	4·8	7·1	9·8	*13·1*	3·5	6·1	3·8	2·6	4·3	4·2	6·5	4·5	5·4	4·7	3·3	2·0	3·4	7·4	5·8	1·8	116·3
Aug.	3·5	4·9	5·5	8·9	9·6	4·5	4·1	7·3	10·1	6·9	2·9	4·4	8·4	9·3	6·7	7·9	*16·3*	10·4	10·2	3·8	4·7	3·1	2·4	3·0	158·8
Sept.	1·5	6·9	8·6	4·0	7·3	5·4	15·8	12·2	13·9	9·7	*19·9*	10·5	11·5	13·8	12·7	9·7	9·6	7·1	12·6	16·2	10·0	9·2	5·0	7·5	240·6
Oct.	0·5	0·3	1·4	0·5	2·1	1·2	1·0	1·8	*4·8*	0·9	1·7	3·8	0·3	0·7	0·3	0·1	0·0	0·3	0·0	0·0	0·0	0·2	0·0	0·5	22·4
Nov.	3·1	8·8	10·0	6·9	5·2	6·7	7·1	6·5	11·8	10·7	8·4	13·2	18·0	*26·3*	25·2	9·6	18·2	15·5	10·6	8·7	14·5	9·2	13·3	4·6	272·1
Dec.	4·5	4·6	8·1	7·5	6·1	7·9	7·5	4·6	5·0	5·5	10·8	*11·0*	8·3	9·1	10·4	8·1	7·7	10·2	7·2	6·8	5·3	4·3	4·6	3·3	168·4
Annual	32·0	50·3	73·1	54·9	56·5	66·7	74·8	69·0	71·8	73·2	73·3	67·2	74·9	90·1	92·5	74·8	*101·1*	90·7	76·7	64·5	60·1	63·9	56·1	43·8	1652·0

RAINFALL

Monthly and annual totals of durations in sixty-minute periods between exact hours. G.M.T.

103 ESKDALEMUIR: h_r = 242·0 m. + 0·4 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	hours																								
Jan.	5·4	6·4	6·5	4·7	5·5	6·1	5·9	5·1	4·6	4·3	3·2	4·3	5·5	5·1	5·5	5·1	6·1	6·0	4·0	3·8	4·2	5·7	*8·0*	6·5	127·5
Feb.	0·9	1·7	1·1	2·8	3·4	4·4	*5·8*	5·4	4·6	5·1	3·4	1·4	0·9	0·8	3·8	3·9	5·0	5·2	4·9	5·1	3·1	4·4	5·1	3·3	85·5
Mar.	4·4	6·0	6·4	6·7	6·7	*7·7*	7·0	7·4	7·0	7·4	6·3	5·0	5·2	5·2	4·3	4·6	3·7	3·0	4·0	4·4	2·6	5·0	5·0	5·2	130·2
Apr.	1·6	2·5	3·0	2·4	1·7	1·3	2·4	2·3	4·3	2·0	1·3	1·0	1·3	2·2	2·2	*2·6*	4·0	*4·8*	4·5	2·8	3·8	3·7	2·2	1·5	61·4
May	1·0	1·1	*2·0*	1·7	1·3	0·9	0·3	1·2	1·6	0·3	0·4	0·5	0·4	1·1	0·6	1·9	1·5	1·9	1·5	1·0	1·7	1·0	1·0	0·0	25·9
June	2·7	4·4	5·2	3·1	2·9	4·3	3·8	5·1	3·3	5·1	5·0	4·3	2·6	4·5	4·9	5·9	*6·6*	5·7	5·3	5·4	3·5	3·0	2·1	3·0	101·7
July	4·8	4·2	5·7	8·2	8·7	7·5	7·0	6·1	3·8	4·1	3·8	3·9	6·8	5·6	*8·9*	5·4	5·6	6·2	3·9	3·5	3·9	4·6	5·0	5·2	132·4
Aug.	6·3	6·5	7·6	*11·1*	9·2	7·8	6·5	5·4	4·9	3·4	4·0	2·9	4·2	2·4	4·1	3·6	4·2	4·3	5·0	3·3	3·8	3·7	4·4	3·5	122·1
Sept.	1·8	4·4	4·3	3·7	5·2	5·3	8·3	8·8	7·4	5·2	*9·5*	6·4	6·0	6·9	6·6	5·9	6·0	2·8	4·3	5·5	3·7	4·9	5·1	5·2	133·2
Oct.	1·3	0·7	2·4	0·8	0·9	1·6	2·4	*2·5*	2·4	1·2	1·1	1·2	1·1	0·4	0·6	0·0	0·0	0·3	0·0	0·0	0·0	0·2	0·0	0·7	21·8
Nov.	5·3	5·8	6·9	6·5	7·0	7·7	7·9	7·7	8·4	8·5	11·8	10·8	9·4	11·5	*12·5*	10·0	11·9	11·7	7·4	7·4	7·4	7·8	5·7	4·5	201·5
Dec.	5·1	5·5	7·4	7·2	*8·6*	8·2	6·8	6·6	5·8	5·6	5·2	5·9	7·3	6·9	7·7	6·8	6·0	5·8	5·4	5·3	4·9	5·2	3·6	3·6	146·4
Annual	40·6	49·2	58·5	58·9	61·1	62·8	*64·1*	63·6	58·1	52·2	55·0	47·6	50·7	52·6	61·7	55·7	60·6	57·7	50·2	47·5	42·6	49·2	47·2	42·2	1289·6

NOTES ON RAINFALL

104 ESKDALEMUIR:

Dry Periods

The following definitions are adopted by the British Rainfall Organization
An "absolute drought" is a period of at least 15 consecutive days to none of which is credited 0·2 mm. of rain or more
A "partial drought" is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0·2 mm.
A "dry spell" is a period of at least 15 consecutive days to none of which is credited 1·0 mm. of rain or more

"Absolute drought" No occasions
"Partial drought" No occasions
"Dry spell" April 25-May 15

Wet Periods

The following definitions are adopted by the British Rainfall Organization
A "rain spell" is a period of at least 15 consecutive days to each of which is credited 0·2 mm. of rain or more
A "wet spell" is a period of at least 15 consecutive days to each of which is credited 1·0 mm. of rain or more

"Rain spells" January 23-February 12, July 26-August 9, August 28-September 23 and November 12-November 28.
"Wet spells" January 23-February 12 and July 26-August 9.

Rainfall Duration

There were 134 days on which no duration of rainfall was registered. The day with the greatest duration was March 18, when the duration was 24·0 hr., the amount falling being 14·3 mm. The longest continuous fall, 56·0 hr. occurred on March 17-19, 50·6 mm. being recorded.

Hours	0·1-1·0	1·1-2·0	2·1-6·0	6·1-12·0	>12·0
Number of days	38	29	80	59	25

Notable Falls of the Year

The greatest amount in a 60-min. period was 8·1 mm. which was recorded between 19h. and 20h. on September 10, of which 5 mm. fell in 35 min. Falls of 5 mm. in one hour or less occurred on 19 days.

Details of the greatest continuous falls are as follows

	January 3-4	March 17-19	March 19-20	September 10	December 14	December 22-23
Amount (mm.)	28·0	50·6	29·9	37·3	13·4	29·9
Duration of rainfall (hr.)	17·9	56·0	17·0	11·9	20·8	18·8

Rate of Rainfall (Jardi recorder)

The highest instantaneous rate of rainfall recorded was 145 mm./hr. at 16h.35m. on August 14. The maximum rate exceeded 50 mm./hr. on April 16, June 5, July 4, August 7, and 14, September 5 and November 25.

105 ESKDALEMUIR: h_s(height of recorder above ground) = 1·5 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible
	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%
1	...	...	...	...	7·8	*73*	8·0	62	2·7	18	5·2	31	0·1	1	0·1	1	2·3	17	0·8	7	0·2	2	0·8	11
2	2·6	36	...	...	7·7	72	8·3	64	12·5	82	5·1	31	0·2	1	5·8	37	2·5	18	0·5	4	1·0	11	3·1	42
3	...	...	...	...	...	...	5·4	41	12·4	81	6·2	36	7·4	42	6·9	44	1·5	11	1·8	16	...	...	...	...
4	...	...	1·1	13	...	...	1·6	12	9·7	63	...	...	6·9	40	1·6	10	0·3	2	...	...	0·4	4	*6·0*	82
5	1·6	22	3·3	37	...	...	*10·6*	*80*	8·1	52	1·9	11	4·2	24	0·2	1	1·4	10	3·7	33	...	...	...	...
6	0·2	3	0·6	7	6·4	58	9·3	70	10·3	66	9·3	54	10·9	64	0·8	5	1·7	13	9·3	83	...	...	4·1	56
7	...	...	0·2	2	5·5	50	...	...	1·0	6	5·6	32	3·2	19	4·9	31	0·9	7	9·3	84	5·1	58	0·1	1
8	0·3	3	...	...	1·5	13	4·4	33	12·8	82	1·3	80	7·2	42	2·2	14	0·1	1	0·8	7	2·3	26	...	...
9	...	...	6·9	75	1·1	10	7·6	56	13·2	84	5·6	33	8·8	52	3·7	24	3·7	28	1·4	13	0·2	2	...	...
10	3·8	51	1·4	15	6·1	54	9·1	67	*13·9*	*88*	3·2	19	8·1	48	0·4	3	...	...	7·2	66	3·6	42	3·5	49
11	...	...	...	...	0·2	2	...	...	9·9	63	3·2	19	*13·6*	*80*	4·2	27	1·7	13	*9·4*	*87*	...	...	...	...
12	...	...	...	...	1·4	12	0·3	2	10·5	66	9·7	56	10·6	63	...	...	0·2	1	...	...	*5·2*	*61*	5·2	73
13	*6·3*	*84*	3·7	39	...	...	1·8	13	7·4	46	5·7	33	2·9	17	2·7	18	...	...	...	...	...	...	1·5	21
14	5·7	75	...	...	0·2	2	10·1	72	10·0	62	0·5	3	5·8	34	3·2	21	...	...	...	...	...	...	...	...
15	5·5	72	...	...	0·9	8	9·7	69	9·9	62	...	...	...	...	1·2	8	5·1	40	0·1	1	...	...	...	...
16	5·7	73	1·9	20	3·2	27	2·4	17	5·7	35	0·1	1	3·4	20	7·2	48	0·9	7	...	...	...	...	...	...
17	...	...	5·1	52	...	...	8·0	56	5·5	34	3·0	17	0·2	1	4·4	30	4·7	37	...	...	...	...	0·8	11
18	0·8	10	2·3	23	...	...	9·6	67	6·6	41	0·7	4	...	...	1·3	9	...	...	1·1	11	0·3	4	5·8	*83*
19	0·1	1	5·5	56	...	...	8·6	60	12·8	78	3·8	22	1·9	11	0·2	1	1·8	14	...	...	...	...	...	...
20	6·1	77	6·7	67	0·1	1	...	...	2·5	15	9·1	52	0·9	5	5·8	40	3·4	27	0·1	1	...	...	...	...
21	5·9	74	8·2	82	5·4	44	9·9	68	5·3	32	8·4	48	0·9	5	0·5	3	0·3	2	...	...	...	...	...	...
22	...	...	1·4	14	0·5	4	3·9	27	9·7	59	*13·8*	*79*	0·3	2	7·7	53	1·6	13	0·7	7	0·9	11	...	...
23	...	...	7·2	71	6·1	50	6·2	42	11·2	68	7·8	45	...	...	4·7	33	5·7	47	...	...	...	...	...	...
24	...	...	8·0	78	1·4	11	1·5	10	10·2	61	4·8	28	8·1	49	2·6	18	2·7	22	1·1	11	...	...	3·5	49
25	...	...	*8·8*	*85*	2·3	19	1·2	8	10·1	61	5·6	32	2·3	14	6·3	44	...	...	0·4	4	...	...	...	...
26	...	...	8·4	81	...	...	1·2	8	6·2	37	2·8	16	1·7	10	6·8	48	...	...	7·2	74	...	...	...	...
27	...	...	8·1	78	*8·0*	63	...	...	...	...	0·7	4	2·1	13	*9·3*	*66*	0·3	3	5·5	57	...	...	3·9	55
28	...	...	8·0	76	7·5	59	8·7	58	4·9	29	5·1	29	1·6	10	2·0	14	*6·3*	*53*	7·4	77	...	...	4·2	60
29	0·9	11			1·0	8	1·9	13	8·1	48	0·1	1	4·6	29	2·7	19	1·9	16	7·9	83	0·1	1	...	...
30	2·6	31			7·4	58	...	...	7·5	44	7·7	45	2·9	18	0·5	4	3·9	34	...	...	1·1	15	2·5	35
31	...	...			7·5	58			3·6	21			7·4	46	1·8	13			0·2	2			2·1	30
Mean	1·55	20	3·46	36	2·88	24	4·98	35	8·20	51	4·53	26	4·13	25	3·28	22	1·83	14	2·45	23	0·68	8	1·52	21
											Annual mean		3·29	27										

DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

106 ESKDALEMUIR: h_s = 1·5 m.

	Hour L.A.T. 3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total	Per cent. of possible
	hours																			%
Jan.	–	–	–	–	...	0·4	6·9	*9·1*	*9·1*	*9·1*	7·2	6·0	0·3	...	–	–	–	–	48·1	20
Feb.	–	–	–	...	2·9	9·6	12·8	13·3	13·0	*15·0*	12·5	9·6	5·6	2·5	...	–	–	–	96·8	36
Mar.	–	–	...	...	1·4	6·4	9·8	12·9	11·8	*12·1*	10·3	9·9	10·2	3·8	0·6	...	–	–	89·2	24
Apr.	–	...	...	4·8	9·5	13·9	15·0	16·4	*16·8*	16·4	14·5	13·6	12·4	9·8	6·0	0·2	...	–	149·3	35
May	...	0·5	8·0	14·2	18·5	20·5	*22·8*	21·0	20·0	21·1	21·0	19·4	20·2	19·7	17·2	9·8	0·3	...	254·2	51
June	...	0·4	4·7	9·0	9·5	10·1	10·5	11·5	*12·0*	10·5	10·9	8·9	9·8	*12·0*	7·7	6·5	2·0	...	136·0	26
July	...	0·1	2·0	2·9	8·1	10·1	9·8	9·1	12·0	13·4	10·8	*13·5*	10·1	10·1	9·9	5·5	0·8	...	128·2	25
Aug.	–	...	0·5	4·3	6·2	10·0	*10·8*	10·6	8·5	9·5	9·4	8·5	8·1	6·2	6·0	2·3	0·8	–	101·7	22
Sept.	–	–	...	...	2·3	2·6	5·2	6·1	5·5	7·7	6·5	6·7	6·4	5·4	0·5	...	–	–	54·9	14
Oct.	–	–	–	...	3·0	6·6	9·7	*10·1*	9·3	9·3	8·6	8·8	7·7	2·8	...	–	–	–	75·9	23
Nov.	–	–	–	–	...	1·7	3·5	3·3	*3·7*	3·3	2·6	1·9	0·4	...	–	–	–	–	20·4	8
Dec.	–	–	–	–	–	0·2	5·4	7·0	*10·6*	10·3	8·9	4·7	...	–	–	–	–	–	47·1	21
Annual	...	1·0	15·2	35·2	61·4	92·1	122·2	130·4	132·3	*137·7*	123·2	111·5	91·2	72·3	47·9	24·3	3·9	...	1201·8	27

WIND

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

107 ESKDALEMUIR: h_a(height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 235 m. + 15 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust
	metres per second																							
1	1·7	10	9·2	23	0·9	6	*1·1*	7	2·6	8	2·6	12	4·9	14	3·5	13	*1·2*	7	1·7	7	3·7	13	7·1	27
2	1·1	8	7·5	26	2·2	12	2·3	12	1·9	12	3·3	16	6·8	17	5·4	18	2·1	8	2·1	10	*1·0*	6	9·5	*29*
3	4·6	17	7·9	21	5·9	18	1·4	11	2·7	11	4·2	15	*1·5*	7	5·3	17	3·7	15	3·6	14	3·9	14	3·4	15
4	*11·3*	*29*	8·5	22	5·2	17	3·3	16	2·6	13	6·3	19	6·4	20	5·6	16	5·0	13	4·3	14	7·1	20	3·5	14
5	5·7	18	7·3	25	6·8	16	3·8	17	5·3	16	*13·3*	*27*	5·7	18	3·2	8	3·7	14	5·1	*19*	4·4	13	0·9	8
6	3·6	13	5·0	20	5·9	17	4·1	14	6·6	18	7·3	17	5·0	20	*6·9*	17	6·6	18	0·8	5	1·7	7	1·5	8
7	2·2	12	7·9	21	1·8	8	7·0	16	6·0	19	4·3	15	2·0	10	5·0	17	2·9	13	1·4	9	5·4	19	5·0	18
8	8·0	28	5·3	19	2·8	12	5·3	20	6·5	22	*0·8*	8	2·3	10	3·1	13	1·9	13	2·8	9	7·7	21	2·9	12
9	7·9	21	6·4	19	2·3	9	2·0	13	5·1	15	2·7	14	1·5	9	4·7	16	3·4	14	3·8	11	4·8	17	1·9	8
10	9·5	25	6·0	18	*0·5*	3	2·2	13	3·2	10	3·9	17	1·7	10	2·8	15	4·6	15	4·2	12	2·4	12	0·7	5
11	7·0	20	6·2	19	2·8	9	6·6	21	2·1	9	2·6	12	3·1	13	3·9	11	2·7	10	*5·9*	15	1·6	13	6·9	24
12	5·0	22	1·3	8	5·1	18	4·8	15	3·8	14	1·5	9	2·1	9	6·3	19	4·5	21	5·0	13	8·4	*25*	1·8	10
13	2·1	10	1·4	6	7·3	17	3·3	13	4·6	17	1·3	9	2·2	14	5·4	18	10·3	23	3·9	13	3·6	21	*0·6*	4
14	1·2	9	2·7	10	5·3	13	2·9	13	3·0	13	1·1	8	4·7	17	1·7	10	7·1	22	0·8	6	5·6	17	1·3	12
15	0·9	7	4·4	12	4·2	16	4·5	18	1·9	11	2·0	8	4·0	13	1·5	9	7·9	21	0·5	4	2·9	10	4·3	16
16	*0·3*	3	4·3	16	2·4	10	6·3	20	*1·3*	13	2·7	7	2·2	9	1·2	11	*10·7*	22	*0·5*	5	1·5	9	1·1	5
17	2·4	11	5·2	20	4·0	23	5·7	*23*	3·7	15	4·1	13	4·5	15	*0·9*	7	9·6	23	2·1	7	5·2	14	1·7	7
18	6·2	17	5·0	21	8·2	18	2·3	11	5·3	17	2·4	11	2·6	12	4·9	17	4·5	18	4·7	15	4·0	17	1·4	6
19	1·9	10	8·9	*28*	*10·5*	26	4·8	20	*7·8*	*22*	2·0	11	3·5	13	2·0	11	5·9	18	3·1	11	1·3	9	1·8	9
20	0·4	2	*10·9*	23	8·3	*27*	3·0	15	4·7	15	2·3	13	5·1	15	1·3	6	3·8	13	3·7	12	6·9	23	1·0	5
21	1·0	7	6·7	21	4·8	13	4·9	17	4·4	15	2·2	10	4·2	13	1·7	8	6·8	*24*	4·0	15	7·5	22	5·0	16
22	4·3	13	6·5	21	2·2	15	4·4	15	2·7	12	2·5	11	5·0	14	1·7	10	10·4	23	2·9	10	3·6	18	8·7	24
23	1·6	6	9·1	27	4·5	21	7·4	22	3·5	13	3·4	16	*10·1*	24	2·6	11	9·8	24	1·3	6	6·1	23	1·1	6
24	7·2	22	3·7	13	3·4	13	4·9	17	5·6	16	4·7	15	7·8	24	4·8	14	5·4	16	1·7	9	6·7	20	1·5	10
25	6·3	23	*1·0*	6	4·8	14	2·6	9	6·2	17	2·6	12	5·8	16	1·0	7	7·5	17	3·6	11	*9·4*	24	*10·4*	27
26	3·8	21	1·4	8	3·3	10	4·2	14	5·2	15	4·7	15	2·6	11	1·6	10	6·7	19	2·5	9	4·7	13	6·7	23
27	1·7	11	1·6	10	1·8	9	*8·7*	22	5·1	18	4·7	21	3·6	13	1·7	8	5·6	18	2·4	11	4·9	13	3·2	17
28	8·2	22	1·8	10	0·7	5	5·1	15	3·8	15	8·1	21	5·9	16	5·1	*23*	1·2	6	2·8	14	2·1	10	3·5	19
29	6·0	20			1·4	8	5·3	17	3·9	15	8·2	22	4·9	21	4·4	(15)	2·9	(12)	0·8	8	1·2	6	1·9	9
30	5·9	20			2·7	9	5·6	18	1·5	11	7·2	20	8·2	*25*	5·0	14	2·2	9	(0·6)	3	4·9	17	3·4	14
31	4·6	21			1·5	8			4·3	16			4·2	15	2·6	11			(1·8)	8			3·7	16

WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

108 ESKDALEMUIR: h_a = 235 m. + 15 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	metres per second																								
Jan.	4·2	4·0	3·8	4·0	4·0	3·9	3·6	*3·6*	3·6	3·9	4·3	4·7	*5·2*	5·1	4·9	4·8	4·3	4·0	4·3	4·4	4·5	4·7	4·9	5·0	4·3
Feb.	5·7	5·7	5·4	5·4	5·3	5·4	5·5	4·9	5·3	5·7	6·1	6·5	*6·5*	6·2	5·7	5·4	5·2	5·4	4·9	4·9	5·0	5·0	*4·9*	5·0	5·5
Mar.	3·3	3·1	3·0	3·1	3·1	*2·9*	3·1	3·2	3·7	4·3	5·1	5·1	*5·5*	5·4	5·2	5·3	4·9	4·1	3·9	3·8	3·9	3·6	3·4	3·5	4·0
Apr.	3·2	3·2	3·3	3·2	3·5	3·4	*3·0*	3·2	3·8	4·8	5·4	5·8	5·8	6·0	6·5	*6·6*	5·8	5·1	4·3	3·8	3·6	3·7	3·6	3·5	4·3
May	2·5	*2·4*	2·6	2·6	2·6	2·9	3·8	4·4	4·9	5·1	5·3	5·6	*5·9*	5·8	5·8	5·8	5·7	5·6	4·4	3·3	2·9	2·7	2·7	2·7	4·1
June	2·3	2·3	2·3	*2·3*	2·4	2·6	3·1	3·8	4·3	5·0	5·3	5·4	6·0	*6·4*	6·2	6·0	5·6	5·3	4·4	3·7	3·0	2·6	2·5	2·5	4·0
July	2·8	2·9	2·7	2·9	3·0	3·1	3·7	4·0	4·7	5·3	5·8	6·1	*6·1*	6·1	6·0	5·5	5·2	5·3	4·7	4·3	3·7	3·6	3·4	3·0	4·3
Aug.	2·3	2·3	*2·3*	2·3	2·6	2·5	2·6	3·1	3·7	4·4	4·6	4·8	4·8	5·0	*5·2*	5·0	4·6	4·2	3·6	2·9	2·7	2·6	2·5	2·3	3·4
Sept.	4·5	*4·3*	4·4	4·4	4·5	4·8	5·0	4·8	5·1	6·0	6·2	6·5	6·3	6·3	6·4	*6·5*	6·2	5·6	5·4	5·0	5·0	5·3	5·3	4·8	5·4
Oct.	2·4	2·3	2·2	2·2	*2·1*	2·3	2·1	2·3	2·3	3·0	3·6	*3·8*	3·8	3·7	3·7	3·5	3·2	3·0	2·5	2·2	2·1	2·3	2·4	2·4	2·7
Nov.	4·2	4·1	4·1	4·3	4·0	4·0	4·2	3·7	*3·7*	4·4	4·7	4·7	5·3	*5·4*	5·0	4·6	4·7	4·6	4·5	4·8	4·7	4·5	4·5	4·5	4·5
Dec.	3·3	3·3	3·1	3·0	3·1	3·4	3·2	3·5	3·7	3·7	4·2	4·4	*4·4*	4·4	4·2	4·0	3·6	3·1	3·0	3·1	2·9	*2·6*	2·8	2·7	3·5
Annual	3·4	3·3	*3·2*	3·3	3·3	3·4	3·6	3·7	4·0	4·6	5·0	5·2	5·5	*5·5*	5·4	5·2	4·9	4·6	4·2	3·8	3·7	3·6	3·6	3·5	4·1

DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

109 ESKDALEMUIR: h_a = 235 m. + 15 m.

	DISTRIBUTION OF WIND SPEED								EXTREME VELOCITIES				
	More than 17·1 m./sec.		10·8 to 17·1 m./sec.		5·5 to 10·7 m./sec.	1·6 to 5·4 m./sec.	Less than 1·6 m./sec.	No record	Highest hourly wind			Highest gust	
	Dates of occurrence	Duration	No. of days	Duration	Duration	Duration	Duration	Duration	Veer from N.	Speed	Hour ended	Speed	Date
		hr.		hr.	hr.	hr.	hr.	hr.	°	m./sec.	day h.	m./sec.	day h. m.
Jan.	4	3	10	47	193	240	261	0	240	19	4 19	29	4 18 10
Feb.	–	0	10	47	291	233	101	0	350	14	23 10	28	19 14 50
Mar.	–	0	4	21	179	334	210	0	210	16	19 09	27	20 10 15
Apr.	–	0	5	16	221	314	169	0	250	13	17 05	23	17 04 00
May	–	0	2	5	219	369	151	0	50	13	19 17	22	19 16 40
June	5	3	6	32	168	301	216	0	200	19	5 14	27	5 14 25
July	–	0	4	18	221	369	136	0	250	14	30 13	25	30 12 40
Aug.	–	0	1	1	170	354	219	0	20	11	12 22	23	28 09 45
Sept.	–	0	9	65	256	298	101	0	250	14	23 08	24	21 22 45
Oct.	–	0	0	0	68	396	280	0	310	10	5 12	19	5 11 45
Nov.	–	0	6	19	232	315	154	0	230	13	12 13	25	12 20 13
Dec.	2	1	6	30	137	283	293	0	270	17	2 03	29	2 01 00
Year	3	7	63	301	2355	3806	2291	0	200	19	June 5 14	29	Jan. 4 18 10

110 ESKDALEMUIR

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.
	degrees Absolute																							
1	76·1	80·2	75·1	78·2	75·7	78·6	80·3	78·4	81·3	80·3	84·1	81·9	85·4	83·1	86·6	84·8	86·0	84·9	85·0	84·1	79·7	82·5	78·9	81·1
2	76·1	80·1	75·3	78·2	75·1	78·4	80·2	78·5	81·5	80·3	84·0	82·0	85·9	83·3	86·6	84·8	86·0	84·8	85·1	84·1	78·7	82·5	78·8	81·1
3	76·0	80·1	76·0	77·9	75·2	78·4	80·6	78·9	82·1	80·3	84·2	82·0	85·8	83·1	86·7	84·9	86·1	84·9	85·1	84·1	79·5	82·4	78·2	81·0
4	75·0	80·0	76·7	78·1	75·1	78·3	80·9	79·0	82·5	80·3	84·0	82·1	86·4	83·2	86·7	84·5	86·1	84·9	85·1	84·2	80·5	82·2	77·8	81·1
5	75·9	79·9	76·8	78·0	75·1	78·2	80·9	79·1	83·0	80·4	83·9	82·1	86·6	83·2	87·0	84·8	86·1	84·9	84·9	84·3	81·6	82·1	77·2	80·9
6	75·8	79·8	76·7	78·0	75·1	78·2	80·6	79·2	82·2	80·5	83·6	82·1	86·6	83·6	87·3	84·8	86·5	84·9	84·3	84·3	82·2	82·1	77·0	80·8
7	75·7	79·8	76·8	78·2	75·0	78·2	80·2	79·1	82·1	80·5	83·9	82·2	86·3	83·6	87·0	84·9	86·2	85·1	84·1	84·3	82·6	82·1	76·8	80·9
8	76·1	79·3	77·1	78·1	75·0	78·1	80·2	79·1	82·2	80·6	83·9	82·2	86·7	83·8	87·0	84·9	86·0	85·1	83·6	84·2	81·9	82·2	76·8	80·7
9	76·3	79·2	77·1	78·2	75·0	78·1	80·0	79·3	82·3	80·8	83·9	82·1	87·2	83·9	86·8	84·9	85·8	85·0	83·4	84·2	81·1	82·1	76·7	80·5
10	77·0	79·2	77·0	78·1	75·0	78·1	79·9	79·3	82·7	80·8	84·0	82·1	87·4	84·0	86·6	85·0	85·6	85·1	83·5	84·1	80·8	82·5	76·6	80·5
11	77·6	79·2	77·3	78·2	75·1	78·0	80·0	79·3	82·9	80·9	84·0	82·2	87·7	84·1	86·5	84·9	85·4	85·1	83·2	84·2	80·3	82·3	76·4	80·3
12	77·4	79·2	78·0	78·3	75·0	78·0	80·0	79·4	83·1	81·0	83·9	82·3	88·1	84·2	86·5	85·0	85·3	85·1	83·1	84·1	80·3	82·2	76·3	80·3
13	76·4	79·3	78·0	78·1	75·0	77·9	80·1	79·4	83·2	81·1	84·0	82·3	88·7	84·1	86·3	85·1	85·4	85·1	82·9	84·0	80·4	82·1	76·2	80·0
14	76·9	79·3	78·4	78·1	75·7	78·0	80·4	79·4	82·9	81·1	84·0	82·2	88·0	84·0	86·2	85·0	85·2	85·1	82·8	83·8	78·9	82·1	76·2	79·9
15	76·2	79·1	78·5	78·3	75·6	77·9	80·8	79·5	82·6	81·2	84·1	82·3	87·2	84·1	86·1	85·0	84·8	84·7	82·4	83·7	79·2	81·9	76·0	79·8
16	75·9	79·1	78·6	78·3	75·2	77·8	81·1	79·6	82·4	81·2	84·3	82·3	86·9	84·5	86·1	85·1	84·8	84·6	82·4	83·6	79·2	82·0	76·0	79·8
17	75·4	79·1	78·4	78·7	75·0	77·8	81·2	79·4	82·0	81·2	84·2	82·4	86·9	84·5	86·0	85·0	84·9	84·6	82·3	83·7	79·3	81·7	76·0	79·7
18	75·1	79·1	78·4	78·7	75·2	77·7	81·3	79·7	82·1	81·2	84·0	82·2	86·6	84·6	86·0	84·8	84·9	84·5	82·1	83·6	79·3	81·7	75·9	79·5
19	75·1	79·0	78·9	78·9	76·1	77·6	81·3	79·8	82·4	81·1	84·1	82·4	86·3	84·6	86·0	84·9	84·5	84·4	82·0	83·3	79·3	81·6	75·8	79·4
20	75·1	79·1	78·3	78·7	77·5	77·6	81·5	79·9	82·5	81·1	84·0	82·4	86·2	84·4	85·9	84·7	84·1	84·3	82·2	83·5	79·2	81·6	75·8	79·3
21	75·0	79·1	77·8	78·0	77·9	77·6	81·4	80·1	82·8	81·2	84·0	82·5	86·1	84·6	86·0	84·6	84·0	84·5	82·8	83·4	79·3	81·5	75·8	79·2
22	74·8	78·8	78·1	78·9	78·4	77·6	81·2	80·1	83·0	81·2	85·0	82·3	86·0	84·7	86·1	84·7	84·0	84·6	82·9	83·5	79·6	81·5	75·9	79·2
23	74·7	78·6	77·0	78·9	78·2	77·9	81·4	80·1	83·1	81·2	86·1	82·6	86·2	84·5	86·7	84·7	84·5	84·4	82·8	83·3	79·0	81·4	76·0	79·1
24	74·6	78·5	77·0	79·0	78·0	78·0	81·2	80·1	83·5	81·2	86·7	82·6	86·3	84·4	87·1	84·9	84·1	84·3	82·3	83·2	79·2	81·4	76·2	79·1
25	74·8	78·3	76·3	79·0	77·7	78·0	81·1	80·2	83·6	81·2	86·2	82·5	86·9	84·6	87·0	85·0	84·1	84·3	81·8	83·2	79·4	81·4	75·8	79·0
26	74·7	78·4	76·0	78·8	78·3	78·0	81·3	80·1	83·9	81·2	86·5	83·0	87·0	84·5	86·9	85·0	84·3	84·3	81·0	83·3	79·9	81·2	76·2	78·9
27	74·9	78·3	75·9	78·8	78·5	78·1	81·2	80·2	84·1	81·4	86·1	83·1	87·0	84·5	86·5	85·1	85·0	84·3	80·6	83·1	79·9	81·2	76·5	79·1
28	75·0	78·3	75·7	78·6	78·9	78·2	81·0	80·1	84·1	81·5	85·7	83·0	87·0	84·4	86·8	85·2	85·1	84·4	80·6	83·2	79·8	81·2	76·5	79·0
29	75·0	78·3			79·3	78·3	81·3	80·1	84·0	81·6	85·6	83·3	86·7	84·7	86·3	85·1	85·1	84·1	80·0	83·1	79·6	81·1	76·2	78·9
30	74·9	78·1			80·0	78·3	81·5	80·3	84·1	81·7	85·2	83·0	86·6	84·7	86·2	85·1	85·0	84·1	79·6	82·9	79·4	81·1	76·1	78·9
31	74·9	78·0			80·2	78·3			84·8	81·8			86·7	84·6	86·2	85·2			79·3	82·8			76·0	78·9
Mean	75·6	79·1	77·2	78·4	76·5	78·0	80·8	79·6	82·9	81·0	84·6	82·4	86·8	84·1	86·5	84·9	85·2	84·7	82·7	83·7	80·0	81·8	76·5	79·9
											Year		81·3	81·5										

MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 18h. TO 7h., G.M.T.

111 ESKDALEMUIR

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
	degrees Absolute											
1	66·4	75·2	*57·9*	70·3	75·0	75·1	81·8	80·0	76·8	76·0	75·4	73·7
2	61·7	73·7	58·3	68·7	71·5	72·9	87·0	83·5	78·2	78·0	71·3	74·8
3	61·1	73·2	65·8	69·7	69·9	79·5	77·6	82·3	77·2	80·2	68·8	71·6
4	70·7	73·9	69·8	72·8	69·4	71·7	86·0	80·2	84·4	76·9	84·8	72·1
5	76·1	74·9	73·2	73·0	74·8	83·0	82·4	86·4	84·9	79·0	84·5	*63·6*
6	73·0	71·6	72·6	67·8	73·5	79·4	80·0	83·2	84·2	70·4	84·0	70·9
7	69·1	75·7	64·8	75·1	74·2	75·9	77·9	79·4	73·8	68·5	79·9	65·6
8	75·0	76·3	64·8	78·6	77·1	70·7	77·0	75·9	81·9	71·4	76·5	73·4
9	73·1	71·1	71·0	65·5	72·8	*69·8*	79·8	80·6	75·9	76·8	71·7	70·0
10	76·2	76·1	61·9	*64·3*	68·9	80·5	76·0	78·9	76·2	78·9	73·9	65·2
11	75·0	77·0	63·0	73·5	73·3	73·0	*74·5*	78·8	81·9	74·1	*67·1*	67·7
12	75·3	75·7	72·3	78·6	69·0	71·3	81·1	79·9	*73·3*	76·3	78·0	69·1
13	65·4	77·6	74·2	79·9	73·9	70·2	80·2	81·9	79·9	80·0	72·8	69·2
14	60·8	78·8	72·2	71·3	67·0	78·0	81·5	79·0	78·9	78·0	71·4	74·3
15	59·4	75·5	70·0	71·4	65·3	79·8	79·9	76·0	78·9	77·0	72·6	72·9
16	59·4	78·2	70·0	72·7	*63·8*	79·2	80·8	71·2	81·8	77·8	75·3	67·5
17	59·2	69·4	67·8	77·3	71·9	78·9	82·0	72·3	80·7	77·3	77·1	72·0
18	68·0	79·0	78·0	71·2	72·0	73·9	82·0	73·0	79·3	76·2	75·0	67·0
19	66·8	78·2	78·6	67·1	77·7	72·9	82·0	82·0	77·2	76·6	75·3	64·2
20	60·8	71·5	78·7	78·9	75·8	*69·8*	83·7	75·1	79·0	79·8	73·6	73·0
21	*58·9*	69·2	76·4	74·0	78·9	73·2	82·9	75·9	76·6	83·1	77·3	70·4
22	65·2	67·8	76·2	70·0	71·3	81·5	83·0	82·2	81·2	78·9	75·0	77·8
23	72·0	74·2	69·2	78·9	71·3	82·7	79·2	80·1	79·4	77·9	67·3	74·8
24	66·8	65·7	68·5	73·8	80·0	83·5	86·2	84·7	77·4	70·0	76·1	63·9
25	74·2	58·8	72·3	73·9	78·0	75·0	78·9	77·5	79·8	70·3	75·1	72·0
26	75·1	60·4	78·2	76·1	78·8	80·2	81·1	*71·1*	84·6	65·9	77·5	75·0
27	67·9	*57·4*	70·9	77·8	81·9	73·2	83·5	71·3	83·7	71·3	76·4	72·1
28	73·1	59·0	68·1	76·1	77·0	74·9	82·8	75·1	78·6	69·2	74·8	71·9
29	72·9		75·3	74·9	75·4	80·5	79·9	82·2	77·9	*63·1*	73·1	64·5
30	71·1		75·3	77·7	77·3	81·2	81·9	82·7	79·6	65·5	73·1	72·6
31	66·9		73·9		78·2		81·9	82·7		71·4		72·4
Mean	68·3	72·0	70·6	73·4	73·7	76·4	81·1	78·9	79·4	74·7	75·2	70·5
						Year	74·5					

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0.

The minimum "on the grass" refers to the interval from 18h. on the previous day to 7h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

112 ESKDALEMUIR

	JANUARY, factor 5·33				FEBRUARY, factor 5·25				MARCH, factor 5·12			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	220	220	210	340	70	140	175	235	85	280	165	270
2	165	185	210	320	Z±	35	110	160	275	155	175	560
3	175	245	265	-35	120	255	170	Z±	205	Z+	145	350
4	-315	-320	Z-	15	120	95	130	Z-	165	100	-145	110
5	105	145	290	550	65	Z±	Z±	255	70	35	150	145
6	385	240	245	Z+	340	Z-	165	255	85	135	140	190
7	260	Z-	385	265	155	Z-	115	130	100	220	195	350
8	250	265	190	205	50	170	Z-	180	285	375	Z±	Z±
9	110	-40	Z-	175	145	95	150	105	Z±	Z±	400	515
10	Z-	Z-	110	370	Z-	Z-	Z-	125	280	405	390	370
11	125	165	100	85	Z-	75	110	210	440	500	365	215
12	50	80	Z±	220	85	295	40	395	Z±	360	265	300
13	185	135	450	255	(615)	350	(45)	(45)	190	95	40	50
14	190	125	245	265	(20)	(20)	145	340	0	110	60	210
15	280	380	330	425	215	70	70	180	125	160	135	300
16	295	380	Z+	730	125	65	115	550	125	130	120	190
17	325	245	200	425	275	130	90	105	165	Z±	75	Z-
18	115	50	Z±	140	85	95	195	180	95	-	-	-
19	100	90	190	305	50	Z-	Z±	Z+	-	-	-20	515
20	145	195	220	215	65	80	175	195	445	Z-	-230	Z-
21	130	235	185	205	135	130	185	130	145	100	Z±	195
22	255	115	225	245	120	-15	Z-	Z-	Z-	190	100	255
23	165	50	85	635	75	95	150	180	180	Z-	185	210
24	(395)	(405)	Z-	70	150	115	180	375	290	300	35	115
25	Z-	280	-120	Z-	55	130	160	445	40	70	105	180
26	-150	-215	185	405	415	410	145	425	135	110	60	315
27	345	130	180	150	165	160	210	315	445	515	405	560
28	Z-	125	Z-	90	165	295	170	280	305	365	140	250
29	55	Z-	140	Z+					200	130	300	305
30	60	100	-230	200					140	175	275	125
31	110	145	280	Z-					(220)	380	255	405
(a)	192	189	224	281	155	150	139	241	194	225	187	280
(b)	171	156	196	289	168	157	141	263	186	219	168	261
Mean	(a) 221		(b) 203		(a) 171		(b) 182		(a) 221		(b) 209	

	APRIL, factor 5·02				MAY, factor 4·92				JUNE, factor 4·94			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	235	240	415	330	90	100	55	375	170	130	135	145
2	475	340	280	325	140	255	140	365	100	195	45	75
3	240	160	130	255	375	165	185	330	120	140	130	175
4	345	200	175	140	65	50	130	80	75	35	-25	265
5	285	135	(170)	520	60	50	105	105	Z-	265	Z-	Z±
6	175	130	160	220	70	70	140	130	75	50	25	125
7	290	50	60	70	300	110	110	95	180	135	155	220
8	-10	220	230	275	70	185	210	205	230	60	Z+	175
9	425	155	140	260	120	270	165	165	45	195	125	85
10	65	75	105	280	100	105	140	330	-160	-235	80	215
11	110	10	40	-	130	135	265	405	160	190	Z±	100
12	-	-	50	50	305	160	165	95	80	210	Z±	295
13	195	95	90	300	65	150	120	105	165	135	Z-	205
14	160	405	160	190	140	200	90	60	60	220	110	10
15	115	170	275	365	275	235	125	Z+	20	60	100	130
16	670	375	60	Z-	240	170	Z±	Z+	45	105	125	210
17	Z-	75	140	200	155	Z-	300	145	195	Z-	125	220
18	85	90	175	360	140	150	-	-	135	120	Z-	90
19	130	210	185	Z-	-	-	-	105	180	125	Z±	155
20	-140	-115	60	210	50	Z-	95	165	185	160	165	185
21	180	110	125	300	Z-	110	155	225	225	140	115	385
22	405	145	90	190	170	210	150	75	185	150	135	220
23	225	150	135	300	50	160	135	95	Z-	Z+	195	215
24	115	Z-	150	Z-	Z±	240	140	205	135	Z-	135	185
25	80	145	260	130	220	135	115	170	65	185	150	40
26	25	100	30	90	175	75	120	165	170	Z±	120	105
27	85	Z-	100	70	200	Z±	210	120	220	165	175	320
28	85	70	110	105	270	240	135	225	280	135	150	190
29	65	55	145	330	320	275	80	50	Z-	110	Z-	395
30	100	95	40	165	235	120	145	45	140	160	120	205
31					Z-	135	Z±	-45				
(a)	206	154	143	232	168	158	145	172	140	143	125	184
(b)	178	140	155	248	165	153	138	175	113	118	112	178
Mean	(a) 184		(b) 180		(a) 161		(b) 158		(a) 148		(b) 130	

The potential gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used: Z+, indeterminate, positive value; Z-, indeterminate, negative value; Z±, indeterminate, in magnitude and sign.

(a) Mean of all positive readings.

(b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

112 ESKDALEMUIR

	JULY, factor 5·09				AUGUST, factor 5·02				SEPTEMBER, factor 4·88			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	200	320	95	395	190	130	95	250	335	320	Z-	125
2	400	(440)	300	340	275	330	155	170	30	205	-	-
3	560	205	145	190	-	-90	160	185	-	-	185	Z-
4	30	145	185	220	55	165	310	370	255	65	250	170
5	65	185	110	170	300	670	110	390	235	Z-	Z+	20
6	135	150	170	305	35	45	80	125	Z-	175	160	400
7	175	120	155	285	165	195	-	-	395	50	110	220
8	220	185	-	-	-	-	Z±	205	10	65	150	310
9	-	-	175	250	220	240	Z-	310	150	Z-	120	165
10	250	215	210	160	-	275	145	130	120	270	Z-	Z-
11	125	265	215	220	110	135	60	180	150	65	75	410
12	415	240	190	210	100	40	-	-	330	115	205	Z-
13	50	305	140	245	-	-	85	65	-15	Z-	Z-	95
14	35	170	Z±	155	20	70	Z±	70	60	235	70	185
15	70	-45	-170	0	70	40	5	30	60	Z-	195	195
16	155	180	125	50	155	175	75	130	95	120	85	55
17	330	160	105	320	105	180	Z-	45	75	Z+	155	Z±
18	425	305	Z-	340	90	150	85	20	140	120	25	295
19	165	450	Z-	175	30	205	105	80	140	120	125	135
20	-60	280	130	140	70	150	85	105	Z-	75	250	70
21	165	155	150	-90	240	90	60	130	(15)	80	90	(5)
22	210	185	45	350	(20)	150	235	225	(110)	Z-	140	75
23	250	370	305	330	90	140	225	420	-	-	85	135
24	(70)	345	230	350	115	140	165	165	155	150	125	185
25	325	150	185	190	85	125	130	90	70	(10)	20	50
26	(70)	325	210	(35)	10	70	-	-	20	(120)	30	285
27	-	205	Z-	205	-	-	200	150	195	190	190	90
28	160	200	-75	230	215	Z-	-	-	105	120	105	(350)
29	300	215	20	(10)	-	-	Z+	225	320	215	190	155
30	-	-	Z-	180	105	290	Z±	200	80	Z±	215	535
31	120	110	Z-	250	Z±	175	Z-	205				
(a)	203	235	163	217	120	175	129	173	146	137	134	189
(b)	193	222	138	202	121	177	124	180	142	115	109	193
Mean	(a) 205		(b) 189		(a) 149		(b) 150		(a) 151		(b) 140	

	OCTOBER, factor 4·86				NOVEMBER, factor 4·80				DECEMBER, factor 4·70			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	460	535	300	450	55	Z-	55	230	Z±	60	180	Z±
2	480	125	340	330	140	145	135	235	Z-	70	Z±	260
3	100	-30	180	215	0	50	160	60	25	Z±	570	335
4	0	225	155	175	170	200	105	255	220	305	Z+	Z+
5	95	140	115	180	140	290	465	385	235	225	Z-	660
6	395	210	175	105	480	440	675	455	330	230	230	415
7	(30)	(25)	175	285	195	55	270	180	410	250	505	440
8	200	185	220	345	110	170	Z-	Z-	245	160	Z-	Z+
9	145	140	155	50	145	135	140	155	Z+	90	165	565
10	120	120	230	255	140	125	210	400	280	605	600	345
11	100	145	240	305	275	160	-	250	255	Z-	Z-	-140
12	80	75	155	195	85	160	Z-	10	160	280	215	225
13	90	75	120	160	105	165	255	145	Z-	485	Z+	-
14	75	115	155	285	135	35	65	45	-	-	Z-	0
15	235	200	250	340	90	175	Z-	25	80	200	100	215
16	195	200	100	225	50	195	205	235	120	155	245	390
17	100	145	175	300	80	Z-	Z-	30	225	85	335	300
18	155	150	290	265	150	Z-	Z-	195	175	120	180	255
19	210	Z-	235	435	205	20	Z-	Z+	160	150	Z-	390
20	45	Z-	330	385	Z±	Z-	Z-	Z-	145	335	455	465
21	330	295	95	190	Z-	Z±	Z-	Z±	295	235	30	165
22	115	105	130	195	Z-	(390)	185	515	90	90	-8	Z+
23	150	85	225	230	180	260	Z-	155	Z+	Z+	245	405
24	-	-	165	345	165	60	Z-	-	265	170	485	450
25	160	250	270	415	-	-	Z±	Z-	Z-	170	-	-
26	240	330	270	280	125	100	Z-	90	-	-	Z-	210
27	150	235	315	205	Z±	225	Z+	255	445	190	165	335
28	140	120	210	215	145	120	175	500	110	130	285	500
29	290	280	310	365	315	490	445	Z+	205	605	350	5
30	220	270	280	570	385	-170	175	110	Z-	155	390	465
31	325	360	190	385					Z+	335	260	435
(a)	181	190	211	280	163	181	233	214	213	226	299	358
(b)	185	183	208	268	172	137	233	243	232	257	299	322
Mean	(a) 217		(b) 211		(a) 198		(b) 196		(a) 274		(b) 277	

The factor used for converting the potential at the collector potential gradient in volts per metre in the open is given for each month.

Annual means	(a)	173	180	178	235
	(b)	169	169	168	235
		(a) 191		(b) 185	

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

113 ESKDALEMUIR

	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non-cyclic change†	No. of days used	Mean
	volts per metre																										v./m.
	0a days only*																										
Jan.	-42	-44	-38	-30	-46	-30	-37	*-57*	-37	-22	-5	+12	-1	-17	+4	+23	+61	+66	*+83*	+63	+61	+45	+12	-33	+9	7	256
Feb.	+1	+4	-2	+16	+15	+16	+26	+17	+19	0	-44	-60	-53	-39	-42	*-61*	-42	-19	+39	*+60*	+56	+33	+29	+33	+83	5	205
Mar.	-42	-33	-27	-34	*-47*	-5	+44	+15	+21	-23	-21	-10	-32	-32	-28	-17	-26	+37	+62	+77	+63	*+79*	+6	-17	0	9	278
Apr.	+46	-10	-23	-10	+2	+16	+20	-9	*-43*	-26	-35	-42	-39	-30	-25	-31	-37	-10	+37	+69	*+72*	+46	+38	+37	-25	9	228
May	+17	+6	-18	-20	-13	+1	+6	+1	-2	-9	-21	-29	*-34*	-32	-27	-14	-15	+3	+26	+46	*+76*	+36	0	+6	-26	10	181
June	+37	+26	-2	+2	+45	+27	+14	+1	-31	-50	-47	-41	-46	*-64*	-57	-37	-24	-15	+3	+58	*+90*	+78	+8	+27	-6	3	181
July	0	+30	+7	+4	+43	*+49*	0	-18	-13	-1	-9	-15	-30	*-41*	-39	-35	-29	-17	+35	+38	+27	+39	+5	-19	-49	7	220
Aug.	-13	-29	*-48*	-34	-9	+1	+22	+34	+11	+4	-9	-19	-11	-20	-20	-14	-3	+24	*+64*	+50	+26	+22	-9	-7	-49	3	116
Sept.	-22	-2	-3	+1	-34	0	+38	*+70*	+1	-17	+5	+26	+35	+8	-5	-10	-22	+1	+33	-13	-14	-8	*-35*	-29	-36	2	164
Oct.	-9	-26	-37	-42	-42	*-51*	-39	-34	-19	-16	-26	-36	-26	-22	0	+26	+30	+72	*+102*	+93	+80	+43	+4	-19	-9	17	219
Nov.	*-77*	-47	-30	-27	-30	-6	-35	-63	-37	-20	-52	+22	+60	+52	+86	+92	+77	*+98*	+11	+5	+8	-47	-8	-37	+161	3	347
Dec.	-9	-5	-60	-110	-116	-108	-107	*-120*	-53	-50	-13	-8	+10	+50	+73	+64	+57	+96	*+111*	+94	+90	+77	+22	+10	-57	8	283
Year	-9	-11	-23	*-24*	-19	-7	-4	-14	-16	-19	-23	-17	-14	-16	-7	-1	+2	+28	+51	*+53*	*+53*	+37	+6	+4	-	-	223
Winter	-32	-23	-33	-38	-44	-32	-38	*-56*	-29	-23	-29	-9	+4	+12	+30	+29	+38	+60	*+61*	+55	+54	+27	+14	-7	-	-	273
Equinox	-7	-18	-23	-21	*-30*	-10	+16	+11	-10	-21	-19	-15	-15	-19	-15	-8	-14	+25	*+59*	+57	+50	+40	+3	-7	-	-	222
Summer	+10	+8	-15	-12	+17	+19	+11	+5	-9	-14	-21	-26	-30	*-39*	-36	-25	-18	-1	+32	+48	*+55*	-44	+1	+2	-	-	175
	1a and 2a days only*																										
Jan.	-98	*-128*	-106	-103	-78	-29	-68	-94	-108	-32	-11	+42	+46	+36	+41	+75	+120	*+148*	+137	+126	+67	+37	+32	-46	-67	5	183
Feb.	+74	-15	-19	-52	-62	-69	-68	*-77*	-46	-67	-31	+2	+5	0	-57	-33	-31	+14	+16	+71	*+130*	+110	+103	+110	-40	6	169
Mar.	-12	-4	-15	-13	*-30*	-28	-11	-12	0	-2	-11	-21	-17	-15	-17	-5	+14	+15	*+24*	+53	*+57*	+45	+5	-5	-13	9	130
Apr.	+14	+13	-20	-4	-12	-9	-21	-8	-24	*-44*	-30	-35	-9	-20	-9	+18	-1	-11	+5	+13	*+67*	+65	+30	+26	-1	7	130
May	*-43*	+11	+36	*+38*	+37	+17	-3	-20	-27	+10	-16	-15	-17	-16	-1	+7	+19	+14	+12	+14	-34	-19	+4	-15	-1	7	135
June	+19	-30	-37	+22	+47	+58	*+70*	0	*-59*	+12	+20	-12	-47	-15	-26	-22	-22	-31	-8	-7	-7	+6	+35	+33	+84	6	130
July	+35	+33	+27	+53	*+91*	-10	+2	+63	+17	-7	-73	-62	-53	-64	*-78*	-63	+6	-40	+33	+40	+5	+53	-5	+3	-2	5	233
Aug.	-28	-6	+2	+7	*+57*	+50	+2	+22	+6	-5	-39	-13	-5	+15	-15	-14	-15	*-43*	-25	-14	+50	-4	+25	-17	+30	6	167
Sept.	+42	+26	+16	+6	+13	-7	+5	-28	-32	-3	-36	-37	-30	-25	-20	+26	-40	+15	+37	+26	-8	-16	0	*+60*	-55	3	139
Oct.	0	-22	-50	*-57*	-47	-22	-7	+12	-22	-28	-10	+25	-3	+3	-8	-1	+35	+23	+58	*+62*	+28	+10	+13	+7	-23	6	188
Nov.	-44	+10	-4	+31	*-98*	-19	-44	-12	+14	+4	+2	-4	+13	+31	+26	+20	*+80*	-5	-3	-14	+26	+26	-6	-35	+22	2	106
Dec.	-12	-84	-10	*-157*	-72	-48	-90	+4	+59	+63	-53	-75	-90	-1	+37	+76	+57	+44	*+122*	+84	+76	+69	+37	+24	+113	2	226
Year	-4	-16	-20	-19	-13	-10	-19	-13	-19	-8	-24	-17	-17	-6	-11	+7	+19	+12	+34	+38	+38	+32	+23	+12	-	-	161
Winter	-20	-54	-50	-70	-77	-41	-67	-45	-20	-8	-23	-9	-7	+17	+12	+35	+57	+50	+68	+67	+75	+61	+41	+13	-	-	171
Equinox	+11	+3	-17	-17	-19	-17	-9	-9	-19	-19	-22	-17	-15	-14	-13	+9	+2	+11	+31	+39	+36	+26	+12	+22	-	-	147
Summer	-4	+2	+7	+30	+58	+29	+18	+16	-16	+3	-27	-25	-31	-20	-30	-23	-3	-25	+3	+8	+3	+9	+15	+1	-	-	166

Winter: January, February, November, December
Equinox: March, April September, October
Summer: May to August.

* For explanation of 0a, 1a, 2a days see p.90, *Observatories' Year Book, 1938.*

† See p.10, *Observatories' Year Book, 1938.*

114 ESKDALEMUIR

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	0a	...	1b	1·6	0a	...	0a	...	0a	...	1b	1·4
2	0a	...	2c	5·3	0a	...	0a	...	0a	...	1b	2·8
3	1a	2·7	2c	5·1	1c	1·7	1a	0·3	0a	...	1b	2·8
4	2c	17·1	2c	5·4	2b	4·1	1b	1·7	1a	0·1	2b	4·5
5	1b	1·0	1b	2·9	1a	0·5	(0a)	...	1b	1·9	2c	10·4
6	0b	...	2c	4·6	1a	0·1	0a	...	1a	0·1	1a	1·1
7	2b	3·6	2b	4·2	0a	...	1b	2·7	1a	0·2	1a	0·1
8	1b	1·9	1b	2·6	1c	1·7	1b	1·7	0a	...	1b	0·2
9	2c	9·8	1a	1·0	2c	8·0	0a	...	0a	...	1b	1·8
10	2c	4·5	2c	7·7	0a	...	0a	...	0a	...	2a	4·1
11	2b	4·2	1b	1·4	0a	...	(1a)	(2·2)	0a	...	2c	4·8
12	2c	3·5	1a	0·3	1b	0·5	(2b)	–	1a	0·1	1c	2·7
13	0a	...	0a	...	1a	1·1	0a	...	1b	2·9	2b	3·5
14	0a	...	0a	...	1a	1·3	0a	...	1b	0·4	1b	1·7
15	0a	...	1a	0·2	1a	0·1	0a	...	0b	...	1a	0·3
16	0b	...	1a	0·3	0a	...	2c	5·2	2c	3·7	1b	2·9
17	0a	...	1a	0·1	2c	8·6	1b	1·5	1b	1·3	1b	2·1
18	1b	1·6	0a	...	(2c)	–	0a	...	(0a)	...	2c	3·6
19	1a	0·1	1c	2·5	(2c)	–	1b	1·9	(0a)	...	2c	4·3
20	1a	0·7	1b	0·9	2c	11·5	2b	8·7	2b	4·7	1a	0·1
21	0a	...	0a	...	2c	4·2	1a	0·1	2c	2·4	0a	...
22	1a	0·3	2c	9·1	2c	5·5	1b	0·6	0a	...	0a	...
23	2b	4·2	1b	2·7	2c	4·5	2b	3·1	1a	0·2	1b	0·4
24	2b	4·5	1a	0·3	1a	0·1	2c	8·4	2c	3·4	1b	0·3
25	2c	11·1	0a	...	1a	0·3	1a	0·6	0a	...	1a	0·1
26	2a	7·1	0a	...	1a	0·2	1a	2·4	1a	0·5	1b	1·5
27	1b	2·3	1b	0·7	0a	...	1b	0·7	1b	2·0	1b	2·0
28	2c	5·8	0a	...	0a	...	1a	0·3	1b	1·8	1b	1·5
29	2c	3·5			0a	...	1a	2·7	0a	...	2c	5·8
30	1b	1·9			1a	0·9	1a	1·4	1a	1·1	0a	...
31	2c	8·1			(0a)	...			2c	7·6		
Total	–	99·5	–	58·9	–	54·9	–	46·2	–	34·4	–	66·8
No. of days used	–	31	–	28	–	29	–	29	–	31	–	30
Mean	–	3·2	–	2·1	–	1·9	–	1·6	–	1·1	–	2·2

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	1a	0·2	1a	0·3	1b	2·2	1a	0·2	2c	5·1	2c	6·2
2	1a	0·1	1a	0·2	(2b)	–	1b	0·4	1b	0·6	2c	4·8
3	0a	...	1b	2·3	2c	6·7	1a	2·0	2b	3·6	1b	1·5
4	2b	3·6	1a	0·7	1b	2·2	1a	0·3	1b	1·1	0b	...
5	1b	1·4	1b	0·1	2c	7·7	0a	...	0a	...	2b	4·1
6	0a	...	1b	1·4	1b	1·9	0a	...	0a	...	0a	...
7	0a	...	(2b)	–	1b	1·7	0a	...	1b	1·7	0a	...
8	(0a)	...	2c	4·5	2b	4·7	0a	...	2c	7·1	2c	5·9
9	(1a)	0·1	2b	3·5	1b	0·7	1a	0·2	1b	1·1	1b	0·3
10	0a	...	(0a)	...	2c	10·7	0a	...	0a	...	0a	...
11	0a	...	0a	...	1b	0·5	0a	...	(0a)	...	2c	11·9
12	0a	...	(2c)	–	2c	4·8	1a	0·1	2b	3·5	0a	...
13	0a	...	(2b)	–	2c	9·5	1a	0·1	1b	0·5	2c	3·1
14	2b	3·6	2c	2·7	1b	2·9	0a	...	1a	1·7	(2c)	–
15	2b	10·7	2b	3·0	1b	1·4	0a	...	1b	1·3	1a	1·4
16	2b	3·1	1b	1·4	1b	0·9	0a	...	1a	1·0	0a	...
17	2c	6·4	2b	2·3	1c	2·3	0a	...	2c	10·1	0a	...
18	2b	4·8	1a	0·3	2b	4·4	0a	...	2c	7·6	0a	...
19	1b	0·6	1b	1·3	1a	0·9	2c	4·9	2c	5·6	1b	1·5
20	1b	1·9	0a	...	1b	2·8	1b	1·4	2c	18·4	1a	0·1
21	1a	1·0	1a	0·1	(1a)	0·2	1b	0·9	2c	11·8	1b	2·5
22	1a	0·7	1a	0·1	2c	6·3	0a	...	2c	6·1	2c	6·3
23	0b	...	1a	0·1	(1b)	1·3	1b	1·4	2c	8·5	1c	0·1
24	1b	2·0	1b	1·7	0a	...	(0a)	...	(2c)	–	0a	...
25	1a	0·1	0a	...	1a	0·3	0a	...	(2c)	–	2c	7·1
26	1b	1·3	(1b)	0·2	1b	2·6	0a	...	2c	6·9	1b	1·3
27	2b	3·6	(0a)	...	0a	...	0a	...	2c	7·9	(0a)	...
28	1b	2·5	(2c)	–	1b	0·8	1b	0·2	2b	4·8	1b	0·3
29	(1a)	1·7	(2c)	–	1a	0·1	0a	...	0b	...	1b	1·3
30	(2c)	–	2c	7·8	1b	2·9	0a	...	2c	8·8	1b	0·9
31	1b	1·5	2c	10·0			0a	...			2c	2·5
Total	–	50·9	–	44·0	–	83·4	–	12·1	–	124·8	–	63·1
No. of days used	–	30	–	26	–	29	–	31	–	28	–	30
Mean	–	1·7	–	1·7	–	2·9	–	3·9	–	4·5	–	2·1

Annual values: Character frequency 0 1 2
No. of days used 102 159 104

Duration: Total 689·0
No. of days 352
Mean 2·24

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

115 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	530	526	527	528	525	524	535	537	532	520	512	515	520	516	515	512	515	525	501	508	520	524	523	533	522
2	535	513	514	521	524	531	532	530	528	524	521	514	516	516	513	523	508	511	515	523	531	532	532	531	522
3 *d*	529	531	532	533	533	534	537	536	547	564	552	449	453	513	513	484	489	489	446	403	417	407	451	427	495
4 *d*	429	438	438	485	517	515	508	520	489	492	511	507	490	478	488	496	508	493	512	500	477	488	521	491	*491*
5	503	504	504	505	514	520	508	518	513	510	512	513	512	519	516	520	522	522	519	508	510	513	507	515	513
6	520	517	520	520	524	527	527	524	532	527	520	516	517	520	520	520	504	516	519	513	523	527	524	524	521
7	524	524	522	519	523	528	530	530	530	527	520	518	508	512	519	517	514	520	538	511	519	524	519	519	521
8	520	519	522	524	530	528	528	526	523	518	516	516	517	524	526	525	527	527	527	527	528	530	527	526	524
9 *q*	526	526	526	528	531	532	535	535	533	526	522	523	528	534	534	532	534	534	528	523	522	522	526	526	529
10	524	526	526	530	532	535	544	544	543	541	534	534	541	539	541	534	526	523	531	531	534	538	533	534	534
11 *d*	538	538	539	542	541	503	558	541	539	542	523	524	523	519	519	511	519	512	516	522	516	515	527	524	527
12	522	527	528	526	528	530	530	531	531	524	504	504	519	519	519	520	520	522	507	518	513	527	527	526	522
13 *q*	524	526	526	530	530	531	530	530	528	525	522	515	519	527	531	530	530	532	532	523	528	534	533	533	528
14 *q*	532	533	534	535	537	542	536	535	534	531	527	523	522	522	521	523	527	528	531	531	532	531	531	532	530
15	533	534	535	537	542	542	543	539	538	538	535	529	525	526	527	538	542	544	544	546	534	524	515	512	*534*
16	506	516	517	521	523	531	543	543	535	534	532	529	526	526	518	519	520	521	526	528	527	527	531	531	526
17	531	528	528	532	538	542	551	542	522	527	528	526	530	530	526	523	526	515	520	526	526	535	522	515	529
18	524	525	526	524	523	523	530	531	527	519	514	508	506	515	511	519	524	524	518	551	495	504	518	484	518
19	492	530	504	517	517	519	524	524	528	529	520	525	526	526	526	530	532	532	529	530	531	519	520	521	523
20 *q*	518	519	518	526	523	528	529	528	525	522	519	518	525	534	537	535	534	532	532	532	532	530	528	528	527
21 *q*	528	530	530	530	530	531	531	530	526	522	521	519	521	531	534	534	535	538	540	539	532	531	522	515	529
22	519	518	530	520	535	535	550	531	528	537	531	518	510	519	528	526	526	531	533	531	531	527	526	523	528
23	531	525	526	533	533	538	545	541	538	519	507	500	511	516	514	519	519	522	525	530	526	508	528	553	525
24 *d*	524	524	523	534	530	535	540	532	534	526	502	503	506	465	506	488	502	524	507	488	499	525	546	530	516
25	519	518	519	523	525	531	533	527	519	515	507	502	498	502	503	519	500	520	510	527	524	528	530	529	518
26 *d*	530	530	534	538	530	530	530	537	519	508	507	518	514	512	522	522	523	511	499	504	517	527	528	525	521
27	523	523	524	533	520	524	530	528	526	522	518	517	519	526	532	530	531	531	532	529	526	523	527	527	526
28	529	529	527	529	531	533	533	530	527	517	517	520	521	523	525	528	533	536	537	538	531	522	530	531	528
29	532	533	536	538	544	533	544	537	530	522	519	515	518	525	510	520	528	531	530	529	526	530	531	534	529
30	534	532	531	533	537	538	542	544	541	533	523	518	521	523	530	534	538	537	537	537	539	535	538	546	534
31	534	528	530	533	534	537	534	537	534	538	530	525	526	528	532	529	518	522	525	526	526	527	545	531	530
Mean	521	522	523	527	529	530	*535*	533	529	526	520	*515*	516	519	521	521	522	523	521	520	519	521	525	522	523

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

115 ESKDALEMUIR (D) — 12° + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	9·4	9·1	8·3	7·9	8·1	8·4	7·9	7·9	9·2	10·7	12·5	15·7	16·1	15·7	16·7	16·1	12·9	14·0	8·3	11·2	8·9	8·9	8·5	5·9	*10·8*
2	4·9	5·2	9·1	10·1	8·6	8·7	8·6	8·9	8·6	8·7	9·7	10·9	12·4	13·0	13·1	12·6	9·7	9·7	11·5	9·8	9·7	9·4	9·3	9·3	9·6
3 *d*	9·8	10·5	10·5	11·1	9·9	9·5	9·3	9·7	10·8	13·1	12·6	9·7	19·5	14·4	14·2	15·1	8·3	14·4	-8·3·	-5·4	-10·0	-10·3	-8·1	-6·5	*6·8*
4 *d*	-4·7	1·6	6·1	0·4	3·0	9·8	6·1	13·7	14·9	8·9	9·8	10·0	14·2	15·5	15·5	12·8	10·6	12·4	6·2	0·7	6·5	3·5	11·4	6·7	8·1
5	7·9	8·5	10·6	11·4	11·3	9·5	10·4	10·6	9·8	9·8	10·6	12·2	10·9	11·3	11·0	10·6	10·7	10·4	9·9	7·4	7·6	7·0	5·2	5·3	9·6
6	9·7	9·0	9·4	9·5	10·1	10·0	9·7	10·6	10·6	10·6	11·8	12·0	12·9	13·8	13·3	11·4	9·4	4·3	10·6	10·3	0·0	7·7	9·0	9·6	9·8
7	9·7	10·0	9·7	9·7	10·3	9·7	9·5	9·5	9·4	10·0	10·7	12·2	12·8	14·0	12·9	12·9	10·9	10·6	0·8	4·6	8·9	8·9	8·3	6·3	9·7
8	8·6	10·0	10·2	10·1	9·9	11·1	10·4	9·6	9·7	9·7	10·5	10·8	11·6	12·4	12·0	10·8	10·2	10·1	9·5	7·9	8·5	9·4	9·3	9·0	10·1
9 *q*	9·6	10·1	10·1	9·8	9·7	9·9	9·7	9·7	9·3	9·8	9·8	10·5	12·1	12·6	11·8	11·4	11·1	11·7	11·5	10·1	10·1	8·5	8·6	8·9	10·3
10	9·2	9·1	9·2	9·4	9·4	10·7	9·7	10·1	9·9	10·0	9·7	10·6	14·1	14·5	13·0	11·6	12·5	12·5	11·8	9·9	9·7	9·5	9·6	9·2	10·6
11 *d*	8·5	6·4	6·7	10·6	10·4	15·5	17·6	12·4	12·8	13·3	11·5	13·5	13·4	13·7	12·5	12·4	10·6	10·7	10·8	10·3	2·9	-1·4	8·1	8·6	10·5
12	8·3	9·3	8·9	8·6	8·4	8·9	9·9	10·1	10·1	10·5	11·3	12·7	13·5	13·3	12·2	11·3	10·3	10·6	9·8	7·0	8·8	7·4	9·1	9·4	10·0
13 *q*	9·1	9·3	9·5	9·9	8·6	9·0	9·0	9·0	9·1	9·7	10·5	11·5	13·2	13·0	12·4	11·3	10·5	10·1	10·1	7·6	7·9	7·7	9·4	9·7	9·9
14 *q*	9·7	9·8	9·8	10·0	10·7	9·0	9·2	9·0	9·3	9·6	9·8	10·8	11·9	12·2	11·8	11·7	11·6	11·5	10·0	9·7	9·0	8·9	9·0	9·2	10·1
15	9·6	10·1	10·3	10·1	9·7	9·7	9·0	9·0	8·9	9·7	9·7	10·5	10·6	11·0	11·5	12·2	12·3	12·1	11·9	10·8	10·5	8·8	8·0	6·1	10·1
16	3·4	6·0	9·1	7·7	8·7	9·8	9·8	9·7	8·7	9·4	9·9	10·7	11·5	12·5	12·1	13·2	12·3	10·9	10·8	9·7	8·9	6·1	8·9	8·8	9·5
17	8·4	8·6	10·3	10·4	10·9	11·0	9·9	10·7	9·8	10·0	10·0	9·8	11·0	11·0	10·8	10·7	10·9	7·9	6·1	9·3	11·1	3·2	6·1	7·9	9·4
18	9·3	9·0	9·9	9·3	9·0	9·3	8·4	7·8	7·6	9·7	10·6	12·2	14·8	16·1	14·6	11·4	14·2	12·1	10·1	5·0	5·6	5·8	3·7	1·6	9·5
19	7·9	9·3	1·9	2·9	7·3	10·3	9·4	9·2	8·3	8·3	9·3	10·8	12·2	13·0	12·7	13·1	13·5	14·0	14·0	11·0	8·2	7·5	8·6	6·7	9·6
20 *q*	5·3	6·4	6·4	6·8	7·4	8·3	8·7	9·0	8·9	8·9	9·2	10·1	11·0	11·3	10·0	9·5	9·9	10·0	9·8	9·4	9·2	9·1	9·1	9·2	8·9
21 *q*	9·3	9·5	9·5	9·9	9·9	9·5	9·2	9·0	8·4	9·2	10·0	10·7	11·0	13·1	12·4	11·7	11·6	11·1	11·1	11·5	11·5	10·0	4·6	5·3	10·0
22	7·4	7·0	0·8	2·0	2·0	3·8	6·4	7·0	7·7	10·0	11·8	13·2	12·6	13·5	13·3	11·6	10·9	10·3	10·6	10·0	9·3	8·8	4·9	6·0	8·4
23	7·5	8·9	9·7	8·2	7·9	9·4	10·1	10·5	10·0	9·5	10·8	12·5	15·6	13·7	12·4	10·9	9·9	10·1	10·0	9·4	8·1	3·6	-10·8	2·7	8·8
24 *d*	7·3	9·8	11·8	10·0	5·5	9·2	10·7	15·2	12·2	11·3	11·2	14·1	16·5	10·8	12·2	13·9	7·2	11·6	10·6	-1·7	6·5	8·1	3·7	7·1	9·8
25	6·4	8·2	10·8	10·7	10·1	10·0	10·0	9·8	8·9	8·8	9·1	11·2	12·3	11·6	10·8	8·2	8·9	11·0	7·7	10·0	9·7	8·8	7·7	9·0	9·6
26 *d*	9·1	8·6	10·1	9·6	7·3	9·3	10·8	11·2	11·1	11·1	12·7	12·6	12·5	11·9	11·6	11·2	9·9	9·2	0·2	10·7	11·0	9·7	9·3	8·2	10·0
27	8·9	9·2	6·5	6·0	8·1	8·3	9·1	9·4	9·2	8·8	9·7	11·5	12·7	13·1	13·1	11·6	11·1	11·1	10·6	10·1	9·1	7·5	8·7	9·2	9·6
28	9·9	10·1	9·5	9·2	9·0	8·9	8·9	8·8	8·7	8·3	9·5	10·9	12·4	13·7	13·0	11·9	11·3	11·1	11·1	10·9	10·8	7·6	4·6	8·2	9·9
29	9·1	9·8	9·9	9·1	9·8	8·3	8·0	8·2	8·1	8·7	10·8	12·4	12·0	13·9	12·5	11·9	11·4	11·0	11·0	10·7	8·8	9·6	9·2	8·2	10·1
30	9·2	9·6	9·7	10·1	10·0	10·0	9·3	9·7	9·1	8·7	10·7	12·3	13·2	13·7	14·3	12·8	11·9	11·8	11·5	10·4	10·4	10·0	8·2	9·0	10·7
31	8·2	8·2	9·5	9·6	9·2	9·3	9·9	9·8	8·9	9·2	10·1	12·4	14·2	14·0	13·6	12·7	9·7	11·8	11·8	11·7	10·6	10·0	7·1	8·9	10·4
Mean	7·9	8·6	8·8	8·7	8·7	9·5	9·5	9·8	9·6	9·8	10·5	11·7	13·1	*13·1*	12·7	11·9	10·9	11·0	9·1	8·4	8·0	7·1	*6·7*	7·2	9·7

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

117 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1112	1112	1111	1111	1112	1111	1107	1106	1105	1106	1107	1109	1111	1114	1120	1125	1129	1126	1142	1137	1132	1125	1123	1118	1117
2	1101	1104	1107	1108	1112	1112	1111	1111	1112	1113	1111	1111	1111	1117	1120	1122	1129	1131	1129	1125	1121	1117	1116	1116	1115
3 *d*	1113	1113	1112	1111	1111	1111	1109	1108	1106	1100	1100	1125	1159	1138	1143	1256	1310	1340	1304	1185	1113	1010	1014	1028	*1138*
4 *d*	996	1000	1003	1009	1026	1042	1069	1077	1088	1106	1117	1123	1128	1137	1141	1154	1165	1161	1155	1160	1133	1137	1087	1101	*1096*
5	1119	1123	1119	1111	1113	1115	1118	1119	1123	1122	1120	1123	1125	1124	1125	1128	1125	1125	1125	1127	1126	1128	1126	1121	1122
6	1102	1112	1117	1118	1119	1119	1118	1117	1112	1110	1108	1112	1116	1120	1125	1125	1131	1137	1129	1130	1129	1118	1117	1118	1119
7	1118	1118	1118	1119	1118	1117	1116	1115	1114	1115	1117	1118	1117	1118	1124	1129	1132	1130	1131	1126	1123	1120	1121	1123	1121
8	1118	1118	1119	1118	1118	1117	1116	1116	1115	1115	1116	1118	1118	1119	1120	1122	1120	1120	1120	1120	1119	1117	1117	1117	1118
9 *q*	1117	1116	1116	1117	1117	1116	1115	1113	1111	1114	1115	1113	1112	1113	1117	1119	1119	1119	1120	1123	1124	1124	1123	1120	1117
10	1119	1118	1118	1117	1116	1113	1111	1111	1112	1112	1113	1112	1107	1109	1111	1114	1118	1118	1118	1118	1117	1116	1114	1112	1114
11 *d*	1107	1106	1101	1093	1088	1093	1075	1089	1096	1101	1108	1107	1112	1117	1117	1125	1125	1126	1127	1125	1129	1129	1117	1116	1110
12	1116	1113	1111	1111	1110	1109	1111	1111	1111	1115	1119	1119	1118	1118	1118	1119	1119	1121	1128	1128	1125	1123	1119	1117	1117
13 *q*	1117	1115	1114	1113	1113	1113	1113	1113	1113	1115	1117	1120	1121	1122	1117	1114	1114	1115	1116	1119	1117	1117	1113	1113	1116
14 *q*	1113	1112	1112	1111	1108	1111	1111	1111	1112	1113	1116	1115	1116	1117	1118	1117	1117	1117	1116	1115	1117	1115	1114	1114	1114
15	1112	1111	1111	1110	1110	1108	1107	1107	1108	1107	1108	1112	1117	1118	1116	1113	1111	1111	1111	1113	1116	1125	1130	1129	1113
16	1126	1120	1117	1112	1113	1114	1112	1111	1112	1111	1111	1112	1115	1115	1117	1118	1119	1118	1118	1118	1118	1118	1116	1116	1116
17	1114	1112	1110	1107	1105	1106	1105	1105	1106	1113	1116	1119	1118	1118	1118	1118	1119	1123	1126	1124	1121	1122	1118	1119	1115
18	1117	1117	1117	1117	1116	1113	1111	1111	1112	1110	1112	1113	1112	1116	1128	1133	1125	1125	1130	1116	1123	1126	1124	1118	1118
19	1111	1089	1101	1102	1106	1110	1112	1112	1111	1109	1108	1109	1108	1110	1114	1114	1114	1117	1120	1124	1128	1129	1126	1124	1113
20 *q*	1124	1121	1119	1116	1117	1116	1113	1113	1113	1114	1117	1117	1113	1113	1116	1116	1117	1116	1115	1113	1113	1113	1113	1113	1115
21 *q*	1113	1113	1115	1115	1116	1114	1113	1113	1114	1114	1113	1113	1112	1113	1116	1114	1113	1114	1116	1116	1119	1124	1131	1131	1116
22	1125	1123	1120	1117	1111	1106	1095	1099	1107	1104	1102	1107	1111	1110	1113	1116	1117	1117	1117	1117	1117	1117	1118	1116	1113
23	1111	1111	1111	1105	1108	1109	1107	1108	1112	1119	1120	1119	1117	1122	1125	1124	1126	1124	1123	1120	1122	1126	1098	1095	1115
24 *d*	1105	1100	1076	1081	1094	1101	1104	1104	1106	1113	1117	1116	1120	1143	1147	1148	1148	1129	1134	1146	1140	1125	1106	1090	1116
25	1100	1107	1111	1111	1112	1113	1113	1114	1118	1123	1119	1119	1120	1125	1132	1138	1136	1130	1135	1125	1123	1122	1119	1118	1120
26 *d*	1117	1114	1107	1099	1101	1105	1105	1106	1112	1122	1120	1123	1124	1124	1123	1125	1129	1133	1149	1143	1141	1134	1129	1126	1121
27	1127	1125	1123	1117	1117	1117	1118	1119	1122	1113	1109	1107	1107	1107	1110	1112	1113	1114	1117	1118	1119	1123	1119	1117	1116
28	1115	1114	1115	1117	1117	1116	1114	1114	1113	1114	1112	1108	1108	1111	1113	1116	1116	1114	1113	1114	1117	1122	1120	1116	1115
29	1114	1113	1113	1112	1108	1108	1106	1107	1111	1113	1112	1112	1111	1112	1117	1120	1119	1117	1117	1117	1118	1118	1117	1115	1114
30	1113	1113	1112	1112	1111	1111	1108	1107	1108	1108	1107	1107	1106	1106	1111	1113	1113	1112	1112	1112	1112	1113	1112	1106	1110
31	1107	1107	1107	1107	1108	1107	1107	1107	1109	1107	1107	1106	1106	1107	1112	1117	1124	1124	1123	1123	1124	1123	1117	1115	1113
Mean	1110	1109	1109	*1107*	1108	1109	1108	1109	1110	1112	1113	1114	1116	1118	1121	1127	1129	1130	*1130*	1126	1122	1119	1114	1113	1116

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

118 ESKDALEMUIR — JANUARY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +	Minimum 12° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m. ′	′ h. m.	′	h. m.	γ	γ	h. m.	γ			°A.
1	23 36	547	488	18 21	59	14 59 17·1	3·4 18 39	13·7	18 37	1149	1104	08 20	45	1,1,2,2,2,3,3,3	17	1	83·6
2	00 33	551	494	16 33	57	17 50 14·4	3·4 00 01	11·0	17 32	1135	1098	00 50	37	3,1,0,1,1,3,3,0	12	1	83·5
3 *d*	10 20	579	*325*	21 36	*254*	16 10 *34·8*	-21·8 18 31	*56·6*	16 13	*1501*	*918*	22 02	*583*	0,1,3,5,5,5,7,6,5	32	2	83·5
4 *d*	18 22	572	394	02 36	178	02 46 20·1	-11·9 00 16	32·0	16 00	1185	963	02 59	222	5,5,4,3,3,5,5,4	34	2	83·4
5	23 58	535	492	00 01	43	02 45 14·4	2·2 23 45	12·2	21 00	1130	1110	03 23	20	2,2,2,1,2,1,2,3	15	1	83·4
6	21 03	547	476	16 54	71	00 06 15·3	-6·6 20 36	21·9	17 07	1140	1098	00 30	42	3,1,2,1,1,3,4,2	17	1	83·4
7	18 48	566	495	19 36	71	13 30 14·3	-5·6 18 33	19·9	18 32	1135	1113	09 00	22	0,1,1,1,1,2,4,2	12	1	83·2
8	06 00	536	507	09 08	29	13 20 12·9	5·4 19 20	7·5	15 30	1123	1113	05 55	*10*	1,1,1,2,1,0,2,1	9	0	83·2
9 *q*	14 19	541	519	20 11	22	13 11 13·4	8·1 21 05	5·3	20 30	1125	1111	12 10	14	0,0,1,1,1,1,1,1	6	0	83·1
10	12 24	546	520	17 15	26	13 38 14·8	7·9 23 48	6·9	00 04	1120	1105	12 30	15	0,1,1,2,2,2,1,1	10	0	83·1
11 *d*	06 36	573	472	05 46	101	05 59 26·3	-7·1 21 00	33·4	21 20	1132	1069	06 29	63	2,4,4,3,2,1,4,4	24	1	83·1
12	08 56	535	496	18 49	39	12 47 14·2	4·5 19 07	9·7	18 49	1131	1108	05 05	23	2,1,2,2,1,1,3,2	14	1	83·0
13 *q*	21 05	539	515	11 18	24	12 18 13·9	4·3 19 31	9·6	12 50	1123	1112	03 50	11	0,1,0,1,1,1,2,2	8	0	83·0
14 *q*	05 10	546	519	13 50	27	13 02 12·5	8·3 20 48	*4·2*	15 30	1119	1107	05 10	12	0,2,1,1,1,0,0,1	6	0	83·0
15	19 09	547	501	23 51	46	15 23 13·0	3·3 24 00	9·7	22 40	1131	1106	06 40	25	1,1,1,1,1,1,2,2	10	0	83·0
16	06 45	553	499	00 40	54	15 40 13·5	2·4 00 03	11·1	00 20	1128	1110	03 52	18	3,2,2,1,2,0,1,2	13	1	83·0
17	21 31	559	500	17 40	59	04 39 12·5	-1·6 21 53	14·1	18 00	1131	1104	05 00	27	1,2,3,2,1,2,3,3	17	1	82·9
18	19 30	571	472	23 46	99	13 31 17·3	0·0 23 05	17·3	15 07	1138	1109	07 30) 09 52)	29	1,0,1,2,2,3,4,3	16	1	82·8
19	01 05	549	483	00 01	66	01 12 15·7	0·9 02 40	14·8	21 23	1130	1086	01 30	44	4,3,2,1,1,1,2,3	17	1	82·8
20 *q*	14 10	539	510	00 01	29	13 09 11·9	3·7 00 04	8·2	00 02	1125	1111	08 18	14	2,2,0,1,1,0,0,0	6	0	82·8
21 *q*	18 50	542	504	23 13	38	13 40 13·4	1·1 22 51	12·3	23 15	1135	1111	13 00	24	0,0,0,1,1,1,1,3	7	0	82·8
22	06 36	559	504	00 43	55	13 04 14·3	-3·6 02 21	17·9	00 01	1128	1092	06 55	36	4,2,3,2,2,1,0,3	17	1	82·8
23	22 30	*597*	473	22 14	124	12 26 16·4	*-24·2* 22 21	40·6	21 33	1129	1083	22 53	46	2,2,1,2,2,1,2,5	17	1	82·8
24 *d*	22 12	570	415	13 23	155	12 58 19·6	-5·6 19 49	25·2	16 00	1161	1070	02 40	91	3,3,3,3,4,4,4,3	27	1	82·8
25	06 20	536	483	14 52	53	13 03 13·7	3·2 15 02	10·5	15 02	1143	1093	00 01	50	3,2,1,1,3,3,3,1	17	1	82·7
26 *d*	03 17	547	480	17 49	67	12 55 13·4	-5·3 18 12	18·7	18 10	1151	1097	03 18	54	2,2,3,2,1,4,4,1	19	1	82·7
27	03 42	539	515	11 50	24	13 09 13·6	4·1 03 30	9·5	00 18	1129	1106	11 10	23	2,2,1,1,1,1,1,2	11	0	82·7
28	18 12	540	510	10 07	30	13 17 14·3	2·2 21 59	12·1	22 01	1124	1106	11 53	18	1,0,0,1,0,0,1,2	5	0	82·7
29	04 48	553	505	14 22	48	13 13 14·3	7·1 06 33	7·2	15 22	1123	1105	04 50	18	1,2,2,1,3,1,2,1	13	1	82·6
30	23 18	565	511	11 28	54	14 10 15·1	4·7 22 02	10·4	00 01	1116	1105	23 31	11	1,1,1,2,1,1,1,3	11	1	82·6
31	22 19	568	511	17 11	57	14 29 16·2	4·7 22 08	11·5	17 10	1126	1105	11 40	21	1,0,1,1,2,2,1,3	11	1	82·6
Mean	- -	553	487	- -	66	- - 15·7	-0·3 - -	16·0	- -	1145	1091	- -	54	-	-	0·74	83·0

q denotes an international quiet and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

119 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	532	532	530	530	533	537	536	534	532	530	525	526	527	531	534	533	529	529	533	533	533	534	532	531	*531*
2	530	535	529	537	531	532	537	540	540	535	514	505	510	518	527	534	537	534	534	528	526	531	529	524	529
3	522	524	529	529	530	533	533	532	530	521	513	510	511	529	556	549	548	532	544	546	540	529	506	507	529
4	514	518	513	511	517	526	530	529	525	514	503	509	518	517	506	519	510	509	522	523	525	522	519	513	517
5	511	510	507	516	517	507	508	514	507	507	506	504	505	519	518	517	523	523	530	536	529	526	529	527	517
6	545	517	516	518	518	519	518	516	518	521	520	520	514	507	516	522	521	525	529	536	532	532	532	538	523
7 *d*	526	522	522	521	522	523	522	514	515	469	367	426	498	503	490	498	575	550	541	494	464	405	456	362	491
8 *d*	-266	99	222	244	337	409	414	405	435	563	553	506	494	491	494	469	514	487	499	483	486	492	502	498	*410*
9	496	498	492	492	491	493	494	491	474	466	500	498	499	494	505	495	499	500	510	522	532	518	509	510	499
10	505	509	503	501	498	478	482	462	480	479	478	494	493	495	524	518	517	519	521	517	516	506	507	509	500
11 *q*	514	511	501	501	497	505	507	509	501	496	494	496	496	488	496	505	507	509	509	514	512	514	515	514	505
12	515	516	517	518	514	514	517	514	511	503	494	494	498	502	506	512	506	506	507	509	511	503	503	506	508
13	506	510	506	502	498	514	511	498	486	474	506	514	529	528	518	518	517	515	515	517	520	520	520	519	511
14 *d*	519	521	522	522	522	525	519	505	460	476	497	509	488	494	495	497	500	534	528	533	533	515	502	503	509
15	510	520	500	502	529	510	507	519	514	506	500	495	521	514	518	522	520	518	521	523	522	521	521	521	515
16	520	521	521	521	523	527	527	530	527	518	510	505	504	509	518	521	526	529	530	525	530	529	530	518	522
17	538	518	523	525	525	519	528	523	517	511	502	500	501	508	514	521	521	525	526	526	525	525	523	525	520
18	530	523	526	525	527	529	533	532	530	516	506	499	498	506	517	533	541	537	543	539	541	529	529	530	526
19 *d*	533	530	527	530	538	541	541	556	540	511	503	502	506	504	510	534	531	550	522	527	523	492	522	518	525
20	514	511	511	510	514	522	525	529	527	521	510	512	515	518	514	519	523	534	519	509	525	495	479	458	513
21 *d*	438	432	487	517	517	513	498	485	478	467	474	494	470	469	514	510	498	482	495	497	517	509	508	505	491
22	504	501	505	512	522	507	512	517	505	490	501	497	497	501	510	509	516	506	512	511	516	529	514	517	509
23	517	532	520	498	492	508	514	513	480	507	487	490	509	519	514	502	501	505	500	521	521	519	518	520	509
24	518	524	517	517	521	521	521	526	523	512	509	493	501	506	513	511	517	521	526	492	502	498	500	510	512
25	517	517	513	525	529	531	524	529	529	521	501	484	495	493	501	507	524	523	522	525	526	526	518	518	517
26 *q*	516	513	517	524	525	524	531	529	529	515	509	500	504	503	525	517	520	517	511	522	525	536	530	524	519
27 *q*	525	524	524	525	528	529	533	532	528	517	502	497	495	500	508	516	520	518	524	528	530	532	532	532	521
28 *q*	534	530	532	533	533	536	537	539	537	524	513	501	500	506	513	520	528	535	537	540	538	537	537	533	528
Mean	*489*	501	505	507	512	515	516	515	510	507	500	499	503	506	513	515	521	520	*522*	521	521	515	515	510	511

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

120 ESKDALEMUIR (D) — 12° + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	9·3	9·3	9·3	9·3	9·3	9·9	9·3	9·1	9·2	9·0	10·1	11·7	13·7	15·1	14·8	13·1	12·1	11·1	10·9	10·9	10·1	9·8	9·2	9·1	10·6
2	9·3	9·1	9·8	6·7	5·7	6·4	7·2	7·9	9·0	9·1	11·7	13·6	15·9	16·0	14·4	13·3	12·7	11·7	12·2	11·6	10·9	9·6	9·7	8·3	10·5
3	9·3	9·0	9·0	8·8	8·3	8·2	8·3	8·2	7·5	7·5	9·1	10·5	11·8	14·2	16·8	16·7	16·2	14·3	14·0	12·6	12·9	11·5	7·9	8·2	10·9
4	7·0	9·6	10·1	9·6	9·2	9·5	9·1	8·3	7·1	6·5	8·0	10·9	14·2	12·7	12·6	12·7	14·2	11·7	10·1	10·0	9·8	9·0	8·8	4·6	9·8
5	4·6	3·7	2·7	-0·8	2·7	6·2	7·1	8·5	7·9	8·8	10·1	13·1	15·3	15·4	12·9	11·3	11·6	11·1	10·0	10·7	8·7	8·5	8·2	5·5	8·5
6	6·4	7·3	7·6	7·8	8·3	8·1	8·0	8·2	8·9	9·3	10·7	12·6	15·0	16·7	14·3	13·0	12·6	10·7	10·0	9·9	9·3	8·3	9·0	9·0	10·0
7 *d*	3·5	9·0	8·9	9·4	8·9	8·3	7·5	9·9	10·6	17·6	7·8	-5·5	23·9	24·6	30·9	38·6	31·6	28·8	24·6	16·9	12·7	-17·4	17·7	-4·8	*13·5*
8 *d*	-4·8	9·2	7·8	16·9	7·8	21·1	21·1	16·2	15·5	5·4	9·8	14·2	16·2	16·5	10·6	9·0	2·1	-0·7	5·7	3·2	7·9	8·5	7·9	9·1	9·8
9	9·6	9·5	9·2	8·8	8·4	8·1	8·3	7·0	9·9	4·7	9·8	11·8	11·8	11·7	7·3	5·4	7·3	7·5	6·9	5·7	8·3	10·7	11·9	11·8	8·8
10	12·6	14·0	14·4	16·5	17·8	18·6	18·4	9·0	2·0	5·6	3·3	5·7	2·8	1·5	-0·2	0·6	2·9	6·5	8·5	9·8	9·4	9·3	9·4	9·3	8·7
11 *q*	10·0	8·8	11·9	12·3	9·4	8·3	7·8	7·4	6·1	5·5	7·1	9·3	12·2	13·1	11·5	10·7	9·6	9·1	9·5	9·3	6·6	9·3	9·3	9·3	9·3
12	9·3	9·5	10·0	10·1	8·4	8·2	7·8	7·8	7·6	7·7	9·3	10·8	14·0	14·3	14·0	13·4	10·2	10·4	10·5	11·8	10·3	5·2	10·1	8·3	10·0
13	9·7	11·1	12·8	13·1	12·5	12·7	13·9	10·3	9·9	4·9	1·0	4·6	2·8	0·1	4·4	9·3	10·0	10·5	10·1	10·0	10·0	9·9	9·5	9·3	8·9
14 *d*	9·3	9·2	8·9	8·9	8·1	7·9	8·5	14·9	6·3	7·4	9·2	10·9	12·2	11·7	10·5	9·7	9·7	9·9	11·8	11·0	9·3	8·8	7·0	7·5	9·5
15	9·1	9·0	10·2	16·3	19·6	16·6	12·6	9·7	7·5	6·8	8·1	10·1	12·4	13·8	13·4	12·5	11·6	11·0	10·2	10·2	9·7	9·1	8·9	8·5	11·1
16	8·6	8·9	9·1	9·0	8·6	8·2	7·8	7·7	7·0	6·1	7·3	9·6	11·1	11·8	12·7	12·4	11·6	11·0	11·1	10·6	9·9	9·6	8·2	6·4	9·3
17	10·0	8·7	9·5	9·3	9·0	10·6	8·2	7·9	6·4	5·7	7·0	10·1	13·0	13·5	12·7	10·9	10·1	10·1	9·9	9·3	9·1	8·4	8·2	8·0	9·4
18	8·6	8·3	8·8	8·9	8·2	8·9	8·6	8·1	7·6	6·5	8·2	10·9	12·4	14·1	14·4	13·4	13·1	12·3	12·0	10·1	8·9	8·4	8·4	8·5	9·9
19 *d*	8·4	8·8	8·4	9·4	9·1	8·5	8·6	8·9	7·8	7·5	8·9	13·3	14·0	15·4	15·7	16·1	15·2	15·0	15·8	11·5	6·4	3·4	5·2	8·1	10·4
20	8·7	8·0	8·1	9·1	9·3	9·5	9·2	9·1	8·7	9·7	12·1	13·0	13·6	14·2	12·6	12·2	12·1	11·6	12·6	10·5	6·4	-2·0	-2·0	-8·2	8·7
21 *d*	-12·6	-5·7	-5·0	-6·4	-1·3	12·3	11·5	14·9	9·4	16·7	15·8	15·1	15·5	16·9	19·6	10·6	14·2	10·5	9·1	9·3	8·8	10·0	9·8	9·1	8·7
22	8·1	7·3	7·5	1·9	0·0	5·5	7·3	7·2	9·3	11·6	10·9	10·8	10·7	12·7	13·9	11·6	11·6	11·1	10·7	5·9	7·0	4·5	7·7	8·2	*8·5*
23	9·0	5·4	3·9	6·4	7·3	7·8	8·9	11·6	13·3	16·9	14·3	15·7	11·3	12·5	13·4	8·9	7·9	9·7	-0·3	0·9	7·5	7·5	8·2	8·5	9·0
24	8·0	10·9	8·7	7·8	7·3	7·1	7·7	8·1	8·0	9·0	10·1	10·7	12·3	12·2	13·2	12·3	11·8	10·5	9·0	5·3	8·0	4·3	7·3	2·0	8·8
25	7·3	7·9	8·3	13·4	7·4	5·4	7·9	8·3	7·5	8·6	9·8	11·7	14·9	14·6	13·9	10·9	10·0	10·1	10·2	8·2	8·9	8·5	7·9	3·3	9·4
26 *q*	4·2	6·9	8·9	9·2	8·3	8·3	7·6	7·4	6·4	8·3	10·7	11·6	12·9	12·7	11·9	11·3	10·1	9·7	7·3	9·3	9·6	7·8	7·3	8·3	9·0
27 *q*	8·2	8·4	8·7	8·6	8·3	9·1	8·0	7·3	6·5	6·0	7·4	9·2	11·6	12·6	12·3	11·5	10·1	10·1	10·3	10·0	9·8	9·2	9·0	9·1	9·2
28 *q*	8·2	7·9	9·2	9·7	9·1	8·3	8·0	7·3	5·7	5·3	6·6	10·0	13·2	14·5	14·1	13·2	12·0	11·8	11·5	10·9	10·2	9·8	9·3	8·5	9·8
Mean	7·1	8·2	8·5	8·9	8·4	9·6	9·4	9·1	8·2	8·3	9·1	10·6	12·9	*13·4*	13·2	12·3	11·6	11·0	10·5	9·5	9·2	7·1	8·5	*6·9*	9·6

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

121 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	1113	1113	1113	1112	1112	1111	1109	1107	1107	1108	1102	1102	1105	1108	1111	1113	1113	1114	1114	1114	1114	1117	1117	1117	1111
2	1117	1114	1114	1107	1110	1110	1107	1101	1101	1100	1101	1103	1108	1114	1117	1118	1119	1120	1121	1124	1125	1125	1124	1125	1114
3	1123	1119	1119	1117	1116	1113	1111	1110	1110	1113	1112	1112	1112	1111	1111	1111	1114	1123	1125	1125	1131	1143	1150	1124	1119
4	1119	1120	1120	1121	1120	1118	1114	1112	1113	1117	1116	1117	1119	1125	1125	1135	1142	1137	1130	1125	1120	1119	1119	1119	1122
5	1106	1101	1099	1096	1094	1099	1106	1107	1107	1108	1110	1112	1118	1123	1128	1136	1135	1135	1131	1129	1132	1131	1127	1126	1117
6	1118	1119	1123	1123	1122	1120	1118	1115	1113	1113	1111	1109	1112	1118	1122	1124	1124	1125	1123	1122	1121	1119	1118	1116	1119
7 *d*	1111	1113	1116	1117	1118	1119	1115	1111	1104	1105	1128	1151	1134	1131	1179	1228	1310	1328	1349	1280	1222	1119	1049	872	*1150*
8 *d*	853	902	874	903	973	1051	1115	1153	1165	1177	1182	1196	1197	1220	1240	1216	1213	1196	1159	1143	1125	1120	1123	1127	*1109*
9	1131	1132	1135	1135	1135	1134	1134	1133	1133	1138	1134	1130	1129	1135	1145	1153	1146	1142	1139	1136	1130	1130	1129	1129	1135
10	1130	1130	1131	1131	1136	1142	1147	1155	1161	1154	1153	1146	1144	1151	1154	1155	1150	1143	1138	1135	1135	1136	1135	1131	1143
11 *q*	1130	1125	1125	1124	1129	1130	1132	1131	1135	1136	1132	1129	1130	1137	1143	1146	1142	1139	1137	1135	1135	1131	1131	1130	1133
12	1130	1129	1129	1125	1126	1128	1128	1128	1128	1128	1126	1124	1124	1128	1138	1149	1156	1150	1148	1145	1140	1144	1136	1127	1134
13	1125	1125	1128	1128	1130	1125	1123	1124	1135	1143	1146	1157	1159	1159	1156	1147	1142	1137	1135	1132	1131	1130	1130	1130	1137
14 *d*	1130	1130	1129	1129	1129	1126	1125	1125	1126	1133	1142	1149	1152	1145	1142	1142	1139	1135	1131	1133	1137	1145	1135	1135	1135
15	1132	1128	1120	1112	1069	1078	1096	1106	1113	1117	1113	1114	1119	1121	1123	1124	1125	1124	1124	1124	1125	1128	1128	1128	1116
16	1129	1126	1125	1125	1125	1124	1123	1121	1121	1124	1121	1120	1122	1123	1123	1124	1124	1124	1123	1124	1125	1125	1125	1128	1124
17	1123	1118	1118	1120	1123	1120	1117	1118	1123	1125	1123	1118	1118	1120	1125	1129	1129	1125	1124	1124	1123	1124	1124	1124	1122
18	1123	1123	1122	1121	1122	1120	1118	1118	1120	1123	1119	1116	1117	1118	1123	1125	1125	1124	1122	1124	1124	1128	1125	1123	1122
19 *d*	1123	1122	1121	1120	1119	1115	1113	1106	1109	1118	1117	1117	1119	1122	1128	1131	1129	1130	1161	1188	1250	1174	1113	1120	1132
20	1125	1129	1129	1128	1126	1124	1123	1122	1123	1124	1123	1119	1118	1122	1126	1129	1129	1130	1137	1151	1149	1096	1083	1065	1122
21 *d*	1068	1027	1059	1048	1033	1033	1039	1062	1087	1096	1112	1128	1141	1152	1195	1225	1225	1202	1179	1154	1141	1135	1131	1131	1117
22	1131	1125	1093	1059	1062	1086	1100	1107	1113	1118	1118	1117	1118	1119	1124	1125	1132	1132	1135	1141	1132	1128	1125	1124	1115
23	1124	1110	1100	1106	1107	1108	1107	1107	1113	1117	1123	1124	1130	1134	1136	1148	1152	1148	1150	1138	1128	1128	1128	1125	1125
24	1124	1119	1118	1122	1124	1124	1124	1120	1120	1124	1123	1125	1123	1122	1124	1127	1125	1125	1130	1150	1150	1139	1114	1124	1126
25	1118	1117	1120	1102	1094	1096	1105	1111	1117	1118	1119	1123	1124	1129	1130	1135	1137	1131	1129	1130	1129	1129	1130	1129	1121
26 *q*	1125	1123	1121	1119	1119	1119	1118	1119	1120	1119	1115	1117	1119	1122	1124	1125	1126	1131	1136	1132	1129	1125	1122	1120	1123
27 *q*	1120	1121	1123	1123	1122	1119	1118	1118	1119	1123	1114	1112	1113	1117	1118	1121	1125	1124	1123	1123	1123	1124	1123	1123	1120
28 *q*	1120	1119	1118	1117	1117	1117	1117	1116	1116	1115	1112	1107	1107	1111	1117	1119	1119	1119	1119	1120	1121	1122	1123	1123	1117
Mean	1111	1110	1109	*1107*	1108	1111	1114	1117	1120	1123	1123	1125	1126	1130	1137	1141	*1145*	1143	1142	1139	1137	1129	1122	1114	1124

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

122 ESKDALEMUIR — FEBRUARY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +	Minimum 12° +	Range	Maximum 44,000γ +	Minimum 44,000γ +	Range					
	h. m.	γ	γ	h. m.	γ	h. m. ′	′ h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *q*	15 21	541	522	11 18	*19*	14 10 16·0	8·8 09 34	*7·2*	21 50	1118	1100	10 50	18	0,0,0,1,1,2,1,1	6	0	82·4
2	01 04	550	498	11 59	52	12 48 16·9	4·8 05 40	12·1	20 45	1129	1099	09 30	30	2,2,2,3,2,1,1,1	14	0	82·3
3	14 09	565	490	23 40	75	13 57 18·8	4·6 23 00	14·2	22 10	1152	1107	14 02	45	1,0,0,1,3,3,3,3	14	1	82·3
4	12 24	545	489	17 02	56	13 32 16·9	2·8 23 47	14·1	16 33	1146	1111	07 21	35	2,2,1,2,3,3,1,2	16	1	82·2
5	20 54	553	492	01 01	61	13 32 16·7	-2·5 03 26	19·2	15 42	1138	1093	04 00	45	3,3,1,1,2,3,3,3	19	1	82·2
6	00 29	596	487	00 58	109	13 31 17·8	3·6 00 18	14·2	17 05	1127	1106	11 50	21	5,0,2,2,3,1,2,3	18	1	82·1
7 *d*	22 28	*826*	197	24 00	629	15 24 51·2	-57·3 11 12	108·5	18 34	*1424*	757	23 30	*667*	3,1,3,7,6,7,8,8	43	2	82·1
8 *d*	11 04	604	*-1372*	00 33	*1976*	00 42 *58·2*	*-88·8* 00 31	*147·0*	14 50	1256	*695*	01 15	561	9,8,5,7,5,5,5,3	47	2	82·1
9	20 25	540	443	09 16	97	08 30 13·4	2·7 09 19	10·7	15 20	1155	1125	22 54	30	1,0,3,4,3,2,3,3	19	1	82·1
10	14 59	540	447	07 25	93	05 00 20·5	-1·7 08 05	22·2	08 05	1163	1099	01 02	64	1,3,4,3,3,3,2,1	20	1	82·1
11 *q*	17 50	520	478	13 10	42	13 14 14·8	2·9 20 36	11·9	15 15	1148	1123	01 21	25	2,2,1,1,2,1,2,1	12	0	82·1
12	23 01	537	486	21 08	51	13 14 15·4	1·2 21 16	14·2	16 13	1159	1123	11 15	36	0,1,0,1,2,2,2,3	11	1	82·2
13	13 58	542	460	09 33	82	06 50 14·4	-1·1 13 33	15·5	11 51	1165	1122	06 50	43	2,2,3,4,3,2,1,0	17	1	82·1
14 *d*	17 39	616	444	09 08	172	07 45 25·4	3·6 08 50	21·8	11 12	1154	1119	08 05	35	1,1,4,4,2,5,5,3	25	1	82·1
15	04 27	549	485	02 26	64	03 58 26·3	5·2 08 59	21·1	01 00	1134	1059	04 40	75	3,4,3,2,3,2,2,1	20	1	82·1
16	19 13	541	498	12 34	43	14 51 14·1	3·4 23 04	10·7	00 10	1129	1118	08 00	*11*	1,1,1,1,2,2,2,2	12	0	82·1
17	00 49	565	492	12 01	73	00 45 15·1	5·3 01 11	9·8	00 01	1129	1108	01 00	21	3,2,2,2,2,0,0,1	12	0	82·1
18	18 51	557	491	12 02	66	14 31 15·3	5·7 20 43	9·6	21 20	1128	1113	11 48	15	2,1,1,2,2,2,2,1	13	1	82·1
19 *d*	22 12	619	458	22 36	161	18 01 20·6	-17·1 22 06	37·7	20 35	1274	1095	22 25	179	2,3,3,2,2,4,4,5	25	2	82·2
20	20 53	564	400	22 41	164	21 08 24·1	-25·0 21 36	49·1	20 11	1167	1058	23 30	109	1,2,2,2,2,3,4,6	22	2	82·1
21 *d*	14 58	623	384	01 19	239	14 58 31·7	-18·7 00 24	50·4	15 04	1279	1010	01 40	269	5,5,4,4,5,5,4,1	33	2	82·1
22	03 52	543	482	03 09	61	14 28 16·2	-1·8 04 32	18·0	19 15	1145	1052	04 10	93	4,3,3,2,3,3,3,2	23	1	82·1
23	01 26	544	470	08 36	74	09 09 18·8	-8·2 18 46	27·0	18 42	1155	1099	02 36	56	3,2,3,3,3,3,4,1	22	1	82·1
24	22 06	551	475	22 28	76	14 47 14·3	-0·1 21 23	14·4	20 15	1155	1113	01 55	42	2,1,1,2,1,2,3,4	16	1	82·1
25	04 52	540	477	11 18	63	12 55 15·9	-1·4 23 41	17·3	16 18	1140	1093	04 52	47	3,3,2,3,1,2,2,3	19	1	81·9
26 *q*	21 54	552	497	11 33	55	12 57 14·1	1·5 00 01	12·6	18 14	1137	1113	10 52	24	3,1,2,1,1,2,2,2	14	0	81·9
27 *q*	05 50	534	489	11 53	45	13 42 12·8	5·5 09 09	7·3	16 40	1125	1111	11 09	14	0,1,0,2,1,1,1,0	6	0	81·9
28 *q*	19 46	544	497	11 56	47	14 02 15·2	4·8 09 26	10·4	20 20) 23 40)	1124	1106	12 24	18	2,1,1,2,1,2,1,1	11	0	81·9
Mean	- -	513	360	- -	153	- - 20·4	-5·6 - -	26·0	- -	1166	1072	- -	94	-	-	0·89	82·1

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

123 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	533	552	548	518	522	528	525	505	484	508	509	497	494	504	509	510	516	518	524	527	524	524	524	523	518
2	544	510	498	506	510	503	520	518	510	505	517	511	512	509	512	516	514	516	520	521	522	522	521	524	515
3 q	521	522	523	521	520	521	524	525	520	509	504	504	506	512	513	520	524	522	532	532	528	531	529	526	520
4	522	529	516	523	532	533	533	520	501	493	486	471	492	509	524	513	509	516	533	528	517	478	517	482	512
5	501	506	506	510	510	513	513	512	505	485	478	442	474	493	520	520	512	517	517	521	511	512	524	529	505
6	513	511	510	517	518	510	499	501	497	485	479	466	477	504	514	529	525	518	529	520	516	529	540	517	509
7	518	523	525	519	517	520	520	509	500	486	473	478	478	493	504	514	523	517	522	516	520	535	523	526	511
8	526	522	522	523	526	525	524	519	512	502	495	492	500	511	520	523	528	523	531	532	528	529	521	521	519
9	524	523	524	523	524	528	528	529	524	517	508	500	501	513	540	540	537	501	515	517	512	517	513	513	520
10 d	513	524	500	521	529	525	527	533	524	517	501	502	509	539	540	516	530	521	529	546	513	458	448	435	513
11	474	439	493	485	477	486	478	483	486	479	466	485	485	504	505	526	509	522	525	545	520	517	527	518	497
12 q	506	511	512	516	513	513	511	510	502	498	497	502	506	512	514	514	512	513	519	521	521	522	523	522	512
13 q	522	522	521	524	521	524	519	518	508	502	493	497	499	501	511	512	519	526	513	524	524	524	526	526	516
14 q	528	528	521	520	520	520	522	523	513	501	493	501	502	513	509	518	521	523	524	522	528	530	532	532	519
15	537	528	526	526	528	528	526	524	517	486	479	481	486	501	498	499	515	517	522	530	533	544	527	532	516
16 q	529	527	527	527	528	527	526	526	520	510	500	502	504	510	513	522	526	526	529	534	533	537	539	533	523
17	540	540	520	546	541	548	540	540	525	516	501	504	478	502	509	518	525	517	520	529	512	522	524	524	523
18	531	527	531	533	532	534	536	532	526	510	510	513	517	516	518	519	521	524	517	529	532	536	533	532	525
19	527	526	524	522	528	530	532	530	521	520	510	509	503	517	518	525	532	529	540	540	549	548	544	547	*528*
20	548	537	534	536	540	540	540	537	526	520	510	507	497	509	517	518	521	526	529	531	540	537	536	532	*528*
21	533	533	530	542	546	544	540	531	521	512	503	485	478	498	506	523	525	524	531	532	534	536	533	532	524
22 d	532	530	530	532	533	541	549	486	504	505	486	492	465	494	482	515	520	536	536	524	533	539	538	561	519
23	524	524	525	528	529	530	534	545	516	505	498	499	508	520	524	534	533	540	571	539	531	539	520	479	525
24 d	470	227	396	161	426	485	489	493	478	459	432	453	453	481	551	689	591	443	464	462	474	480	513	490	461
25 d	425	419	470	384	438	480	412	395	360	322	340	389	457	559	732	893	654	626	498	474	388	372	358	343	466
26	360	348	355	413	371	423	380	435	435	417	438	466	466	477	497	493	508	517	526	532	512	487	489	489	451
27	479	465	492	490	474	495	497	489	481	471	457	445	453	477	489	517	506	500	507	521	521	512	496	503	489
28 d	495	470	448	442	493	459	454	458	274	456	396	486	495	513	588	871	619	482	466	544	435	323	266	392	472
29	399	395	399	414	424	431	432	428	418	427	427	430	439	431	430	458	475	474	481	484	485	493	494	486	*444*
30	490	485	479	485	489	493	496	494	487	481	478	474	476	482	490	493	497	501	505	510	513	510	510	505	493
31	509	505	502	504	504	506	502	500	489	462	450	454	452	459	481	502	500	506	509	517	520	526	498	478	493
Mean	506	494	500	494	505	511	507	505	490	486	*478*	482	486	502	519	*544*	527	517	519	523	514	509	506	505	505

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

124 ESKDALEMUIR (D) — 12° + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	8·4	9·1	4·4	−0·3	0·7	−0·1	3·5	5·4	5·5	10·1	9·9	11·8	13·2	12·7	10·9	10·0	8·7	9·9	10·1	9·1	8·9	9·1	8·8	8·4	7·8
2	7·6	1·9	1·7	6·0	4·6	7·9	4·2	4·3	5·1	4·7	7·9	10·3	13·0	12·9	12·7	11·5	9·6	9·3	9·3	9·0	8·9	8·7	8·9	8·8	7·9
3 q	9·0	8·7	8·4	8·2	7·5	7·3	6·7	6·9	6·6	6·9	8·9	10·2	12·3	12·9	11·1	10·5	9·7	9·9	9·9	10·3	9·9	7·4	8·4	8·7	9·0
4	8·8	5·5	5·6	5·5	7·0	3·7	5·5	4·2	4·5	3·4	7·1	10·9	14·8	16·6	19·2	18·6	16·9	14·2	11·4	10·9	5·2	0·7	1·4	−2·9	8·3
5	−1·3	4·0	5·1	4·6	5·4	3·2	4·2	3·6	3·7	5·1	7·2	16·0	18·9	20·3	17·8	18·9	10·6	9·9	10·2	9·1	7·2	7·3	8·2	7·2	8·6
6	5·5	6·9	5·6	5·2	5·6	4·7	5·6	3·7	5·3	6·4	10·0	15·1	17·7	19·2	17·9	13·8	12·4	9·9	6·4	8·1	7·5	8·7	6·2	6·2	8·9
7	7·8	7·0	5·5	4·7	4·7	5·2	3·8	3·9	3·7	6·5	7·4	13·1	17·6	16·2	15·9	14·2	12·1	9·8	8·2	7·0	7·3	5·6	8·2	8·7	8·5
8	8·7	8·2	8·2	8·1	8·1	7·3	6·9	5·7	5·5	5·6	7·9	11·5	14·1	15·8	15·9	13·8	12·5	10·7	9·7	10·1	9·1	5·6	8·6	8·7	9·4
9	8·6	8·2	7·6	6·4	5·8	5·3	5·8	5·5	5·1	6·3	8·4	10·1	13·7	15·8	19·6	21·5	22·1	20·9	15·7	5·3	2·7	1·9	3·5	4·3	9·6
10 d	7·0	10·0	11·1	3·7	9·0	6·2	6·1	8·5	6·1	9·2	7·6	9·6	11·9	16·0	19·8	18·6	15·1	10·6	10·9	9·4	−9·2	−0·2	2·7	−2·5	8·2
11	−11·1	9·7	3·5	7·9	10·0	9·1	9·1	8·7	7·2	6·6	7·7	11·3	14·2	13·5	11·8	13·0	8·1	7·9	7·0	2·1	9·2	9·3	8·2	3·8	7·8
12 q	8·2	8·8	8·3	8·4	8·3	8·2	7·4	6·4	5·9	7·0	9·1	10·9	11·7	11·7	10·5	9·3	8·6	8·8	9·1	9·1	9·4	9·3	9·3	9·5	8·9
13 q	9·1	9·1	8·3	8·6	8·5	8·1	7·2	5·6	5·1	6·1	7·9	11·7	13·1	13·5	12·5	10·4	9·2	7·7	5·3	8·3	9·1	8·3	8·2	9·1	8·7
14 q	9·2	9·0	8·8	8·2	7·3	7·2	6·3	4·7	4·6	6·4	9·0	12·4	13·9	15·0	13·1	11·6	9·9	8·4	5·4	6·3	8·3	8·5	8·7	8·7	8·8
15	8·5	8·4	8·3	8·4	7·5	7·1	6·2	4·8	4·2	8·3	11·7	14·8	18·0	17·3	16·5	13·2	10·4	9·3	8·2	4·9	6·2	5·9	8·3	8·9	9·4
16 q	9·0	8·6	8·3	8·2	7·6	7·3	6·5	5·5	3·9	4·6	7·2	11·1	14·2	15·4	14·9	13·2	11·7	11·1	11·6	10·9	10·1	9·6	7·1	7·2	9·4
17	8·1	6·5	6·7	9·9	5·3	6·5	9·6	7·7	8·3	7·3	9·3	14·0	15·1	17·0	14·9	14·2	11·0	5·4	11·8	10·6	1·8	4·2	8·9	8·1	9·3
18	9·7	8·1	9·4	7·9	7·5	7·8	7·7	8·3	6·9	7·5	10·5	12·0	13·8	15·0	13·6	12·7	11·7	10·5	9·0	10·2	9·4	9·1	9·0	8·5	9·8
19	8·4	8·5	8·2	8·1	8·3	7·5	7·3	6·8	6·2	6·7	7·9	10·1	12·5	13·3	12·4	11·9	10·9	10·1	10·4	11·1	11·3	9·5	7·0	4·8	9·1
20	5·2	6·4	7·3	8·0	7·9	8·2	8·1	7·2	5·6	5·9	8·8	14·4	14·4	17·5	17·0	14·9	12·3	11·4	10·2	6·8	5·3	9·3	9·0	9·3	9·6
21	9·4	8·8	8·4	11·9	7·4	7·1	5·7	6·1	4·7	3·7	5·4	10·1	13·8	18·0	16·5	15·2	13·3	11·3	10·4	10·1	10·1	9·3	9·0	8·8	9·8
22 d	8·4	8·3	8·2	8·3	8·0	7·7	6·1	7·2	13·5	9·1	8·0	13·7	14·2	18·3	15·4	13·5	11·8	11·1	9·3	10·0	10·0	9·9	9·1	9·7	*10·4*
23	4·7	5·5	5·9	6·8	5·7	6·2	5·5	4·5	4·6	6·2	7·8	11·0	14·7	15·8	15·7	12·6	12·1	12·0	4·5	10·1	10·0	7·3	−0·8	−11·8	7·4
24 d	−16·5	−17·2	−18·7	−9·9	10·8	2·2	3·3	4·7	6·7	9·7	13·4	13·3	15·2	16·6	20·2	18·7	6·9	10·1	8·8	9·1	8·9	8·0	5·3	2·5	5·5
25 d	6·5	−12·8	10·7	−3·8	1·4	9·8	21·5	21·5	4·1	7·9	7·0	4·8	10·7	15·8	9·1	15·1	21·5	24·8	10·0	16·7	16·0	−10·1	0·1	−2·0	8·6
26	−10·5	−9·7	−3·7	−8·1	−3·5	2·3	1·7	2·6	6·2	4·9	4·2	10·9	14·2	17·6	18·1	16·5	16·6	11·6	7·3	5·6	2·5	4·7	6·5	1·5	5·0
27	1·0	6·3	4·9	0·1	6·7	6·9	5·2	4·7	3·6	5·1	8·1	13·1	18·0	20·8	22·3	16·7	15·1	13·2	10·9	10·1	9·2	11·1	8·1	1·7	9·3
28 d	2·7	−3·8	−11·5	4·3	−1·1	6·1	3·1	1·5	4·0	18·8	26·4	18·3	−26·3	−22·1	4·5	−1·1	9·7	11·7	14·8	−35·3	4·7	12·7	10·0	7·5	*2·5*
29	3·6	12·9	10·1	7·5	7·1	4·1	2·1	1·9	1·6	4·6	8·3	12·5	17·3	17·6	14·3	13·1	11·5	8·8	7·9	7·0	6·1	4·1	7·0	8·2	8·3
30	8·0	6·9	8·5	8·2	7·2	6·2	4·2	2·3	2·8	5·2	7·7	9·9	12·9	14·2	13·5	11·7	8·9	8·1	8·1	8·0	8·3	5·3	6·3	6·9	7·9
31	7·6	6·8	6·9	6·7	6·4	5·2	7·2	8·8	2·7	5·1	7·7	11·4	14·6	15·4	14·2	13·5	11·2	8·9	8·0	7·9	8·0	4·9	−0·2	−4·5	7·7
Mean	*5·1*	5·3	5·5	5·4	6·2	6·2	6·2	5·9	5·3	6·8	8·9	11·9	13·1	14·7	*14·9*	13·6	12·0	10·9	9·3	7·3	7·5	6·6	6·7	5·2	8·4

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

125 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1124	1120	1112	1105	1064	1093	1104	1105	1105	1098	1102	1102	1110	1117	1123	1128	1129	1125	1125	1128	1126	1129	1130	1130	1114
2	1118	1116	1105	1112	1113	1108	1102	1107	1112	1113	1112	1112	1117	1120	1123	1123	1124	1124	1124	1125	1125	1125	1125	1125	1117
3 *q*	1125	1125	1125	1125	1124	1122	1119	1119	1120	1120	1117	1113	1113	1117	1121	1122	1118	1119	1122	1123	1124	1126	1124	1125	1121
4	1125	1117	1123	1124	1118	1117	1117	1119	1120	1118	1116	1115	1113	1113	1124	1142	1147	1148	1143	1147	1156	1150	1082	1095	1125
5	1075	1106	1119	1113	1112	1117	1116	1118	1125	1125	1124	1124	1126	1141	1172	1177	1182	1166	1144	1137	1139	1136	1129	1118	1131
6	1119	1119	1107	1100	1111	1115	1118	1117	1118	1123	1123	1123	1123	1125	1131	1141	1143	1141	1141	1140	1140	1134	1116	1117	1124
7	1123	1123	1117	1114	1119	1119	1119	1119	1117	1116	1114	1112	1116	1119	1120	1125	1132	1137	1137	1139	1136	1128	1125	1123	1123
8	1122	1122	1123	1125	1125	1126	1124	1123	1123	1118	1116	1116	1113	1121	1125	1129	1133	1137	1136	1135	1135	1135	1132	1132	1126
9	1130	1130	1130	1131	1131	1130	1129	1125	1123	1119	1117	1117	1116	1115	1123	1135	1150	1167	1158	1161	1164	1141	1134	1124	1133
10 *d*	1123	1109	1037	1046	1064	1099	1117	1120	1123	1124	1124	1123	1123	1135	1142	1155	1161	1155	1144	1147	1172	1111	1067	1004	1114
11	1010	980	1060	1092	1086	1099	1115	1129	1136	1143	1146	1145	1142	1152	1146	1146	1155	1153	1150	1141	1136	1135	1131	1126	1119
12 *q*	1127	1130	1131	1132	1134	1134	1132	1131	1131	1131	1126	1124	1124	1126	1131	1132	1135	1134	1134	1135	1134	1134	1134	1133	1131
13 *q*	1131	1131	1131	1131	1130	1130	1131	1134	1132	1131	1129	1124	1124	1125	1129	1130	1130	1137	1144	1137	1135	1135	1134	1131	1131
14 *q*	1130	1128	1127	1129	1129	1129	1129	1130	1130	1124	1119	1114	1114	1119	1129	1132	1134	1135	1137	1139	1134	1131	1130	1129	1128
15	1125	1125	1127	1129	1129	1129	1130	1130	1126	1124	1117	1116	1120	1128	1134	1142	1143	1141	1136	1136	1133	1125	1124	1124	1129
16 *q*	1125	1129	1129	1129	1129	1129	1129	1129	1129	1120	1111	1105	1105	1108	1118	1129	1130	1129	1128	1128	1129	1129	1129	1129	1124
17	1129	1127	1122	1103	1111	1114	1114	1113	1113	1113	1113	1114	1128	1130	1132	1137	1153	1163	1147	1137	1142	1141	1134	1131	1128
18	1125	1128	1128	1123	1124	1125	1125	1123	1118	1116	1112	1108	1111	1119	1126	1130	1133	1137	1139	1135	1131	1130	1130	1130	1125
19	1130	1130	1130	1130	1128	1126	1126	1126	1127	1123	1118	1117	1117	1118	1125	1131	1134	1133	1129	1128	1125	1129	1130	1125	1126
20	1122	1123	1124	1124	1124	1124	1125	1124	1123	1117	1109	1107	1105	1112	1122	1132	1136	1135	1135	1135	1129	1126	1123	1118	1123
21	1118	1118	1121	1111	1108	1113	1118	1122	1121	1121	1115	1111	1112	1113	1117	1122	1131	1133	1131	1129	1125	1126	1126	1126	1120
22 *d*	1125	1125	1126	1125	1125	1124	1123	1129	1112	1113	1119	1117	1123	1129	1136	1138	1137	1134	1141	1142	1136	1130	1129	1122	1127
23	1126	1118	1114	1122	1124	1124	1124	1124	1123	1119	1115	1107	1107	1113	1124	1136	1137	1138	1138	1136	1143	1137	1122	1071	1123
24 *d*	1022	853	914	834	932	1095	1137	1142	1147	1149	1166	1173	1183	1211	1260	1376	1325	1214	1184	1168	1167	1161	1143	1107	1128
25 *d*	1026	871	859	857	883	956	1009	1027	1086	1120	1161	1220	1270	1278	1374	1333	1321	1226	1195	1249	1231	955	995	969	1103
26	978	1004	1051	1081	1040	1058	1086	1104	1123	1148	1159	1157	1158	1171	1185	1193	1203	1213	1212	1195	1154	1158	1159	1142	1131
27	1136	1111	1074	1096	1111	1111	1124	1130	1138	1140	1138	1136	1136	1146	1163	1184	1185	1168	1160	1159	1160	1156	1112	1120	1137
28 *d*	1123	1099	1086	1023	1035	1060	1108	1124	1119	1065	1105	1147	806	525	615	1130	1334	1315	1346	1274	1094	1020	1033	1075	*1069*
29	1088	1117	1120	1153	1160	1172	1177	1177	1176	1167	1165	1165	1166	1171	1171	1171	1173	1173	1173	1172	1172	1165	1153	1152	*1160*
30	1148	1150	1149	1149	1153	1154	1155	1153	1149	1148	1144	1141	1140	1143	1148	1149	1151	1152	1149	1149	1152	1155	1151	1152	1149
31	1149	1149	1148	1147	1144	1143	1145	1146	1147	1147	1147	1144	1145	1144	1144	1149	1150	1149	1149	1148	1149	1152	1150	1119	1146
Mean	1109	1098	1099	*1097*	1101	1113	1120	1123	1125	1124	1126	1127	1119	1116	1130	1155	*1163*	1156	1153	1150	1143	1127	1121	1114	1125

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

126 ESKDALEMUIR — MARCH

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +	Minimum 12° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m. ′	′ h. m.	′	h. m.	γ	γ	h. m.	γ			°A.
1	01 41	597	455	08 39	142	09 15 15·6	-5·4 03 33	21·0	23 28	1132	1052	04 17	80	4,4,4,3,2,2,1,3	23	1	81·9
2	00 26	631	478	00 50	153	00 35 17·3	-1·7 00 17	19·0	00 01	1130	1096	06 02	34	5,3,2,4,3,2,1,1	21	1	81·9
3 *q*	21 20	537	501	12 13	36	13 35 14·0	6·0 12 12	8·0	21 08	1129	1112	11 55	17	1,0,2,1,2,1,2,2	11	0	81·9
4	22 11	588	437	22 30	151	15 05 20·9	-8·1 22 06	29·0	20 36	1165	1070	22 21	95	3,2,2,3,3,3,3,5	24	1	81·9
5	22 57	540	391	11 36	149	13 42 22·9	-8·3 00 47	31·2	16 45	1187	1064	00 35	123	4,2,2,4,3,3,2,3	23	1	81·9
6	22 29	552	450	11 35	102	13 30 20·5	1·8 07 45	18·7	16 33	1145	1093	03 16	52	2,3,2,3,3,3,3,3	22	1	81·9
7	21 35	544	465	12 18	79	12 48 18·7	2·6 21 00	16·1	19 52	1141	1111	11 30	30	2,1,2,2,2,2,2,3	16	0	81·9
8	21 10	544	490	11 32	54	13 45 16·5	3·3 21 07	13·2	17 20	1138	1112	12 20	26	0,0,0,0,0,2,2,2	6	0	81·9
9	16 56	564	470	17 42	94	16 32 25·2	-2·7 19 50	27·9	19 45	1176	1113	12 41	63	0,1,1,2,2,4,4,3	17	1	81·9
10 *d*	14 38	595	341	23 26	254	02 07 31·5	-25·0 20 16	56·5	20 13	1201	971	23 18	230	5,5,5,4,5,4,5,6	39	2	81·9
11	00 26	576	396	00 09	180	12 03 17·8	-27·0 00 17	44·8	16 25	1156	934	01 19	222	6,3,3,3,3,3,3,3	27	1	81·7
12 *q*	22 18	525	493	10 09	*32*	11 55 12·5	5·4 07 36	*7·1*	19 20	1136	1123	11 50	*13*	1,1,1,1,1,2,1,0	8	0	81·7
13 *q*	17 26	533	486	10 56	47	13 11 15·9	4·4 08 36	11·5	18 26	1147	1123	11 40	24	1,1,0,2,2,2,2,1	11	0	81·7
14 *q*	01 18) 18 20)	533	489	10 29	44	13 33 15·5	1·2 18 48	14·3	19 00	1142	1113	12 20	29	1,1,0,1,2,1,3,1	10	0	81·6
15	21 26	549	471	09 58	78	12 43 19·4	1·9 08 15	17·5	16 10	1146	1111	11 00	35	1,0,2,2,2,2,2,2	13	1	81·6
16 *q*	22 22	549	497	12 17	52	13 39 16·0	2·8 08 51	13·2	16 26	1131	1102	12 20	29	0,0,1,0,2,1,2,2	8	0	81·6
17	03 55	567	454	12 40	113	13 16 17·8	-6·3 20 58	24·1	17 01	1166	1100	03 41	66	3,3,2,2,3,3,4,4	24	1	81·6
18	03 19	541	502	13 49	39	13 13 16·8	4·7 08 20	12·1	18 20	1141	1106	11 12	35	2,2,2,2,3,2,2,1	16	1	81·6
19	20 44	560	497	12 23	63	13 45 13·7	4·5 23 20	9·2	17 00	1135	1116	12 00	19	0,1,1,1,1,1,2,2	9	0	81·6
20	00 22	557	474	12 11	83	13 19 19·5	3·6 20 10	15·9	16 19	1137	1101	12 50	36	2,1,1,3,3,2,3,2	17	1	81·6
21	03 06	570	465	12 30	105	13 21 19·8	2·6 09 22	17·2	17 00	1136	1106	03 50	30	2,3,2,3,3,2,1,0	16	1	81·8
22 *d*	23 09	603	442	10 21	161	13 26 22·2	1·0 09 06	21·2	19 07	1143	1107	09 14	36	1,3,5,5,4,3,2,4	27	1	82·0
23	18 30	596	416	23 48	180	13 40 16·9	-19·6 23 50	36·5	20 49	1144	1005	24 00	139	3,2,2,2,2,3,4,5	23	1	82·0
24 *d*	15 58	1078	-129	03 50	1207	15 53 34·0	-58·7 02 08	92·7	16 03	*1489*	728	03 48	761	8,8,4,3,6,8,3,5	45	2	82·0
25 *d*	15 34	*1353*	57	01 11	1296	17 10 *89·3*	-51·6 21 09	140·9	14 39	1446	782	01 13	664	8,7,5,5,9,9,8,7	58	2	82·1
26	19 54	627	223	01 59	404	13 56 19·4	-16·1 00 22	35·5	18 10	1231	939	00 03	292	6,5,5,4,3,3,5,3	34	2	82·1
27	15 51	557	439	11 04	118	14 38 24·1	-2·5 03 36	26·6	15 53	1196	1066	02 25	130	4,4,1,2,3,4,3,4	25	1	82·3
28 *d*	15 01	1328	*-383*	22 09	*1711*	22 01 72·7	*-115·9* 12 20	*188·6*	16 51	1417	*393*	13 50	*1024*	4,5,9,8,9,9,8,9	61	2	82·3
29	22 30	517	338	08 43	179	12 52 20·5	-6·8 08 41	27·3	08 39	1179	1075	00 01	104	4,4,5,5,4,3,3,3	31	1	82·3
30	22 14	533	466	11 59	67	13 42 15·1	0·8 07 50	14·3	21 42	1157	1137	12 22	20	2,2,2,2,2,2,2,2	16	0	82·3
31	21 12	537	439	10 38	98	13 05 16·2	-6·9 22 55	23·1	22 04	1153	1106	24 00	47	1,1,3,2,2,2,2,4	17	1	82·3
Mean	- -	628	387	- -	241	- - 23·2	-10·2 - -	33·4	- -	1183	1038	- -	145	-	-	0·87	81·9

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

127 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	477	495	493	500	502	508	504	490	486	479	470	457	473	479	493	500	511	517	521	532	511	502	493	497	495
2	499	503	505	502	506	493	512	501	497	466	454	470	458	495	496	517	516	514	516	521	529	499	497	505	499
3	504	505	504	506	509	509	510	501	490	474	469	462	466	488	505	517	517	536	517	514	513	517	514	505	502
4	506	509	513	513	509	512	513	508	495	479	471	473	481	494	514	509	513	518	524	525	528	528	512	508	506
5	513	516	516	514	513	513	513	506	493	480	470	470	475	493	497	517	526	528	521	510	522	523	521	517	507
6	516	519	517	513	511	513	513	513	504	481	466	458	469	490	495	520	521	530	528	525	529	517	508	515	507
7	513	519	525	526	526	522	531	523	511	497	485	467	478	499	510	509	498	515	527	526	526	529	529	528	513
8	525	524	524	524	525	530	513	513	512	485	480	477	483	478	482	505	516	520	522	534	538	538	542	552	514
9 *d*	536	532	533	540	537	533	529	521	518	490	461	454	475	479	517	535	482	498	498	504	517	521	517	516	510
10	503	509	509	509	510	513	509	501	489	474	465	450	467	474	491	501	509	516	516	519	520	522	533	521	501
11 *q*	523	520	517	517	519	524	523	517	505	492	482	489	486	493	509	516	526	524	525	528	525	528	532	534	515
12	531	535	524	524	525	527	526	517	509	497	493	478	493	513	513	520	520	529	537	549	552	584	544	540	524
13	541	556	545	517	525	536	521	529	520	490	485	490	488	504	505	517	532	532	530	572	532	517	533	517	522
14 *d*	528	522	516	518	521	521	521	518	513	520	491	477	458	536	505	517	509	513	520	517	521	540	533	504	514
15 *d*	525	502	481	520	516	502	485	415	423	430	425	442	478	500	477	538	492	506	537	529	499	505	507	508	489
16	505	505	501	500	501	505	501	496	483	471	461	458	465	483	498	506	510	518	524	524	530	539	502	506	500
17	509	511	515	515	517	520	517	509	502	493	485	482	482	477	505	519	525	525	525	524	524	526	528	526	511
18	522	523	524	524	526	526	525	518	501	471	461	473	481	495	501	516	518	530	542	529	531	533	532	532	514
19 *q*	529	529	528	526	525	526	522	519	513	498	490	482	485	493	505	515	524	545	524	533	530	533	533	529	518
20 *q*	521	524	525	527	529	530	526	521	512	498	487	479	481	493	511	530	524	526	536	537	533	534	532	532	519
21 *q*	529	528	527	529	532	530	527	521	508	496	488	483	489	504	498	518	528	538	544	537	540	540	540	537	521
22	538	533	533	533	533	536	533	540	523	485	478	476	492	504	512	509	524	548	561	557	544	548	544	544	*526*
23 *d*	537	556	555	560	551	532	537	513	491	434	430	419	419	481	552	716	784	643	579	506	369	333	125	-767	452
24 *d*	49	235	74	363	299	458	461	443	403	439	426	473	489	501	502	520	664	568	521	528	494	489	482	472	*431*
25	465	457	479	477	470	478	474	470	450	443	443	442	453	466	481	489	495	502	509	507	506	509	505	502	478
26	492	490	487	485	480	484	490	500	500	501	489	489	501	504	511	517	525	510	536	538	520	520	521	510	504
27	509	514	491	489	490	486	486	483	478	466	466	470	478	482	495	501	508	516	520	521	515	517	513	513	496
28	512	513	506	508	509	506	508	502	497	493	486	490	494	497	520	532	532	520	568	561	511	513	517	519	513
29	519	514	513	513	514	513	506	489	462	482	484	477	496	502	512	521	528	544	526	533	537	517	515	520	510
30 *q*	525	520	518	520	517	515	509	505	500	491	485	490	502	506	514	533	540	545	539	528	526	525	528	528	517
Mean	500	507	500	510	508	513	511	503	493	480	471	*470*	478	493	504	523	*531*	529	530	529	519	518	508	476	504

MAGNETIC DECLINATION (WEST)

Mean value for periods of sixty minutes ending at exact hours, G.M.T.

128 ESKDALEMUIR (D) — 12° + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	1·7	2·7	7·3	3·3	4·7	4·1	3·5	3·5	6·2	4·5	8·4	13·3	16·8	16·6	14·2	11·5	8·9	8·0	4·6	3·4	3·6	-2·9	-1·3	0·0	6·1
2	4·2	10·7	5·9	4·5	7·0	3·6	2·5	2·4	2·8	2·3	5·9	13·2	14·3	17·4	15·1	13·8	11·0	5·3	8·0	8·6	7·4	6·2	0·6	3·6	7·3
3	6·1	7·7	7·1	6·9	6·2	5·7	4·7	3·9	3·4	4·1	6·9	11·8	16·0	15·6	16·4	14·8	11·7	7·0	6·9	8·1	7·7	6·0	5·0	5·6	8·1
4	5·7	5·0	7·0	5·6	4·7	5·2	4·1	1·7	0·6	3·1	7·2	12·2	15·1	15·3	15·2	13·2	10·4	8·8	8·5	8·5	8·8	6·0	5·0	5·8	7·6
5	3·4	2·8	5·3	5·5	5·3	5·2	4·2	1·2	0·2	0·6	3·4	9·8	15·0	18·7	18·9	18·5	16·1	16·0	10·5	8·5	8·5	7·9	7·7	4·4	8·2
6	5·8	2·9	3·4	4·5	4·9	6·1	4·2	2·4	1·7	3·6	7·9	12·5	15·9	19·6	17·8	17·0	13·3	11·1	10·0	8·9	9·0	7·8	2·5	4·2	8·2
7	4·2	4·9	4·7	-0·5	1·9	1·4	2·6	0·7	1·6	2·8	6·9	11·3	15·4	18·8	19·9	19·5	15·9	10·3	8·7	7·7	6·0	7·2	8·3	7·9	7·8
8	7·8	7·6	7·1	7·1	7·5	7·3	8·0	6·9	5·4	5·8	8·0	10·8	15·8	17·1	15·3	13·1	9·6	7·9	7·1	7·8	9·0	9·0	8·5	8·2	9·1
9 *d*	6·2	7·0	7·0	6·1	6·1	5·2	4·4	3·2	1·1	5·2	11·5	16·6	17·9	20·1	17·6	15·3	11·5	9·7	7·9	7·8	8·3	8·3	-0·4	0·6	8·5
10	9·0	5·9	6·1	5·7	5·5	4·4	3·3	1·5	0·7	1·7	5·8	8·9	11·6	12·4	12·4	11·5	9·8	8·1	7·8	8·0	8·0	7·9	7·5	6·0	7·1
11 *q*	7·5	7·0	7·0	6·9	7·1	7·4	6·9	3·0	2·3	4·7	8·0	11·2	15·5	15·8	13·7	10·7	8·8	7·2	6·7	7·5	8·1	8·6	8·7	7·9	8·3
12	7·5	7·3	5·7	6·0	5·4	5·2	3·6	1·9	1·7	4·3	8·2	12·3	13·4	16·0	14·9	13·1	11·0	8·8	7·8	9·7	9·7	10·3	5·8	11·5	8·4
13	7·7	7·9	2·4	-0·4	2·5	4·1	8·9	5·0	3·6	4·5	6·2	9·5	12·5	15·1	14·4	12·5	9·8	8·3	6·8	-4·9	-0·4	3·5	1·7	3·4	6·0
14 *d*	9·1	11·7	8·0	6·1	5·5	5·4	3·3	1·6	1·9	5·2	8·8	13·9	17·7	19·7	14·3	17·1	12·7	9·6	8·3	6·1	4·1	1·6	3·5	11·1	8·6
15 *d*	6·2	8·8	-1·7	-0·2	4·1	6·6	9·4	22·3	20·4	9·7	17·0	18·8	15·2	14·9	14·8	15·6	11·1	9·6	11·4	2·5	7·7	8·5	8·0	8·0	*10·4*
16	7·7	7·0	7·6	7·7	7·1	5·2	3·2	1·9	1·8	3·7	7·1	10·4	13·6	15·0	14·3	11·7	10·4	9·7	8·2	8·0	3·9	1·1	-0·3	5·1	7·1
17	10·0	6·3	6·0	5·8	6·2	5·3	4·4	2·2	1·6	2·6	5·2	9·4	13·6	15·1	14·3	12·5	10·4	8·8	7·9	7·9	7·9	7·3	7·5	6·2	7·7
18	6·1	7·2	7·2	7·8	6·9	6·1	4·3	3·3	1·9	4·7	8·5	12·9	14·9	15·3	14·0	12·5	10·9	9·7	9·0	8·8	7·6	8·1	7·9	7·7	8·5
19 *q*	7·3	6·5	6·2	6·2	5·9	5·7	4·6	4·1	2·9	2·8	4·5	6·7	8·9	10·8	10·8	10·9	10·7	10·4	8·8	8·8	9·2	8·9	6·9	2·7	7·1
20 *q*	4·9	7·1	7·6	7·2	7·3	6·2	5·0	3·6	2·7	3·6	5·2	7·6	10·4	12·7	13·1	13·1	11·5	9·8	9·7	9·7	8·8	7·9	7·8	7·3	7·9
21 *q*	7·0	6·7	6·2	6·2	6·1	4·8	3·6	2·4	2·6	2·8	5·1	7·9	11·6	15·1	13·9	12·5	11·4	10·4	9·5	8·7	8·5	8·2	8·0	7·8	7·8
22	7·3	6·9	6·4	6·0	5·2	4·7	3·7	2·1	2·5	7·4	13·4	12·4	14·2	15·8	15·4	14·4	13·3	12·9	10·8	9·8	8·8	8·7	8·2	7·0	9·1
23 *d*	6·2	7·2	8·6	9·2	12·2	12·5	14·0	16·2	11·5	13·1	9·7	11·7	15·8	16·8	19·5	22·2	20·6	12·9	19·9	12·9	0·3	-9·4	-10·8	-45·2	8·7
24 *d*	-29·8	-24·5	-10·3	-26·3	-7·6	7·1	-1·4	0·6	-2·0	6·3	7·1	8·8	13·1	16·9	13·1	13·5	2·4	8·5	9·1	6·2	10·8	4·2	5·1	2·0	*1·4*
25	3·7	-2·2	0·6	2·1	1·6	3·9	3·1	0·4	2·5	4·7	6·9	8·8	9·9	10·3	10·1	9·1	8·1	7·7	6·5	5·9	6·2	6·8	6·6	5·5	5·4
26	6·0	4·3	3·2	1·6	1·5	1·8	2·5	3·2	4·3	6·1	8·6	10·6	12·4	13·9	14·1	12·8	9·9	8·0	7·9	7·7	5·8	7·4	5·2	0·5	6·6
27	-5·5	-6·7	2·1	4·2	3·6	3·9	3·6	2·9	2·8	4·5	6·1	8·7	10·6	11·4	12·3	11·5	10·5	9·7	8·9	7·5	6·7	7·0	6·9	6·3	5·8
28	4·7	3·7	2·4	1·9	4·0	3·3	2·6	1·2	0·2	1·9	3·6	7·9	11·7	13·3	14·2	14·0	12·4	10·4	10·7	7·9	-0·1	3·9	6·1	6·3	6·2
29	6·3	6·2	6·1	5·4	4·6	2·9	0·5	-1·7	3·3	2·9	7·7	11·6	13·6	12·3	10·8	10·0	9·0	8·5	6·2	6·3	6·6	4·3	3·3	6·1	6·4
30 *q*	8·0	9·0	7·9	5·2	4·3	3·2	0·3	-1·1	-1·0	1·8	4·7	9·1	14·3	15·3	14·3	12·6	10·7	9·4	8·0	7·1	7·1	7·1	6·8	6·7	7·1
Mean	4·7	4·8	5·0	3·9	4·9	5·1	4·3	3·4	*3·0*	4·4	7·5	11·0	13·9	*15·4*	14·6	13·7	11·1	9·4	8·7	7·4	6·8	5·9	4·9	4·0	7·4

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

129 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1113	1129	1099	1119	1135	1138	1141	1143	1137	1144	1142	1137	1141	1143	1149	1159	1161	1159	1160	1154	1155	1154	1142	1134	1141
2	1135	1121	1133	1136	1130	1124	1125	1129	1130	1135	1136	1134	1140	1151	1159	1163	1172	1171	1158	1149	1149	1135	1143	1142	1142
3	1146	1148	1149	1148	1148	1148	1149	1148	1146	1143	1135	1134	1136	1137	1142	1150	1160	1167	1171	1165	1129	1155	1153	1149	1148
4	1149	1149	1143	1141	1143	1143	1144	1144	1143	1141	1134	1130	1134	1137	1144	1154	1155	1154	1149	1147	1144	1146	1149	1149	1144
5	1147	1145	1144	1144	1147	1147	1148	1148	1144	1141	1136	1129	1128	1131	1140	1153	1165	1183	1191	1182	1162	1154	1150	1149	1150
6	1146	1136	1136	1136	1140	1139	1141	1141	1135	1134	1129	1128	1129	1135	1143	1149	1156	1161	1161	1160	1154	1156	1155	1148	1144
7	1144	1142	1136	1129	1121	1124	1125	1124	1124	1123	1120	1123	1129	1137	1150	1161	1160	1159	1154	1149	1148	1145	1142	1142	1138
8	1141	1141	1140	1140	1140	1141	1142	1141	1136	1135	1134	1132	1136	1147	1146	1147	1148	1149	1149	1147	1144	1142	1141	1136	1141
9 *d*	1135	1137	1136	1136	1136	1141	1143	1142	1139	1133	1132	1132	1143	1152	1177	1231	1226	1209	1192	1172	1162	1157	1149	1128	1156
10	1111	1106	1132	1141	1145	1148	1148	1148	1147	1146	1141	1138	1135	1136	1141	1143	1143	1145	1144	1144	1143	1146	1142	1139	1140
11 *q*	1138	1140	1141	1142	1142	1141	1143	1143	1143	1136	1131	1131	1134	1137	1142	1144	1144	1146	1144	1143	1142	1142	1141	1141	1140
12	1140	1136	1137	1138	1138	1140	1142	1141	1140	1135	1132	1129	1124	1123	1133	1141	1139	1140	1141	1137	1137	1130	1140	1140	1136
13	1136	1122	1106	1117	1125	1126	1124	1122	1124	1125	1125	1123	1124	1129	1140	1143	1153	1160	1160	1156	1141	1140	1129	1119	*1132*
14 *d*	1106	1108	1125	1135	1137	1141	1142	1138	1134	1125	1124	1129	1129	1147	1186	1167	1165	1166	1160	1161	1159	1141	1117	1113	1140
15 *d*	1107	1102	1064	1069	1089	1103	1111	1099	1097	1125	1149	1153	1201	1255	1255	1263	1213	1197	1203	1174	1157	1155	1153	1147	1152
16	1148	1149	1147	1143	1142	1143	1149	1149	1147	1148	1145	1141	1141	1142	1148	1149	1153	1150	1151	1149	1148	1141	1130	1128	1145
17	1118	1117	1135	1140	1141	1141	1140	1141	1141	1137	1135	1131	1135	1141	1137	1140	1142	1144	1144	1143	1142	1142	1142	1142	1138
18	1142	1143	1142	1142	1138	1141	1143	1143	1142	1142	1138	1132	1135	1138	1141	1147	1144	1144	1146	1144	1143	1142	1142	1142	1141
19 *q*	1142	1142	1142	1142	1141	1137	1136	1132	1130	1125	1123	1123	1125	1130	1132	1135	1141	1144	1144	1143	1141	1140	1141	1136	1136
20 *q*	1136	1137	1138	1139	1138	1138	1138	1138	1136	1132	1129	1126	1125	1124	1129	1138	1148	1148	1143	1141	1138	1137	1137	1137	1136
21 *q*	1138	1138	1139	1138	1137	1137	1136	1134	1134	1129	1124	1119	1117	1120	1129	1130	1129	1134	1140	1142	1138	1137	1136	1136	1133
22	1134	1136	1136	1136	1136	1136	1134	1129	1125	1129	1125	1130	1131	1131	1136	1138	1141	1143	1144	1142	1141	1138	1137	1136	1135
23 *d*	1135	1128	1117	1108	1104	1108	1099	1093	1105	1117	1125	1146	1164	1257	1262	1383	1394	1327	1327	1316	1207	1141	1041	1111	*1180*
24 *d*	818	1035	987	901	960	996	1105	1119	1136	1148	1178	1218	1194	1197	1226	1214	1238	1196	1197	1197	1138	1142	1143	1146	1118
25	1106	1063	1094	1129	1147	1132	1141	1156	1160	1159	1155	1153	1155	1160	1165	1165	1164	1162	1161	1162	1161	1160	1160	1160	1147
26	1160	1159	1159	1155	1150	1143	1137	1136	1135	1135	1138	1141	1142	1149	1155	1159	1160	1162	1161	1164	1166	1160	1156	1141	1151
27	1119	1093	1099	1130	1146	1148	1147	1142	1141	1141	1140	1139	1138	1142	1147	1152	1149	1153	1154	1156	1155	1154	1154	1154	1141
28	1154	1150	1149	1150	1149	1147	1146	1144	1142	1136	1136	1134	1131	1135	1143	1154	1165	1170	1165	1185	1179	1167	1159	1155	1152
29	1152	1152	1149	1148	1148	1149	1148	1146	1141	1131	1128	1118	1122	1129	1135	1138	1142	1147	1153	1150	1149	1153	1153	1148	1143
30 *q*	1143	1136	1135	1141	1142	1143	1146	1142	1137	1129	1124	1123	1123	1129	1130	1135	1138	1145	1147	1147	1145	1144	1143	1143	1138
Mean	*1125*	1128	1126	1127	1131	1133	1137	1137	1136	1135	1135	1135	1138	1147	1155	1165	*1167*	1164	1164	1161	1151	1147	1141	1140	1143

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

130 ESKDALEMUIR — APRIL

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +	Minimum 12° +	Range	Maximum 44,000γ +	Minimum 44,000γ +	Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′ h. m.	′	h. m.	γ	γ h. m.	γ					°A.
1	19 22	542	448	11 42	94	12 48	18·6	−3·8 21 30	22·4	16 21	1162	1076 02 33	86	4,3,3,3,2,2,3,2	22	1	82·3
2	21 00	584	435	21 37	149	13 11	21·2	−3·7 21 50	24·9	16 40	1173	1113 01 32	60	3,2,2,3,3,3,4,5	25	1	82·3
3	17 49	546	450	11 43	96	13 52	16·9	1·7 08 29	15·2	18 46	1173	1132 11 21	41	1,1,1,2,3,3,2,2	15	1	82·3
4	03 03	544	466	11 00	78	13 56	16·0	0·0 08 18	16·0	16 50	1156	1129 11 30	27	2,2,1,1,2,2,1,2	13	0	82·3
5	17 44	537	464	10 44	73	14 40	20·9	−0·3 08 11	21·2	18 22	1195	1125 12 29	70	2,1,2,2,3,3,3,2	18	1	82·3
6	17 22	536	454	11 50	82	13 38	20·8	0·7 08 05	20·1	18 03	1165	1126 12 00	39	2,2,2,2,2,2,2,2	16	0	82·3
7	02 51	547	462	11 36	85	14 41	22·2	−2·2 03 36	24·4	15 47	1166	1118 04 40	48	3,2,2,3,3,3,2,1	19	1	82·4
8	23 55	573	470	10 11	103	13 10	18·0	3·8 08 04	14·2	18 23	1153	1130 11 12	23	1,1,2,2,2,2,3,3	16	1	82·5
9 *d*	15 10	615	439	11 46	176	13 17	21·4	−9·2 22 45	30·6	15 50	1240	1123 24 00	117	3,1,2,3,4,5,3,4	25	1	82·6
10	22 41	548	437	11 25	111	00 42	14·1	0·3 08 34	13·8	07 05	1150	1090 01 02	60	3,1,2,3,2,1,1,2	15	0	82·8
11 *q*	23 28	540	478	10 24	62	13 13	16·1	0·8 07 50	15·3	17 55	1147	1129 10 40	*18*	1,0,2,1,2,2,1,1	10	0	82·8
12	21 51	615	473	11 36	142	13 53	19·8	0·8 08 05	19·0	15 44	1143	1120 13 00	23	2,1,1,3,3,3,3,4	20	1	82·8
13	19 30	611	473	09 44	138	13 59	16·5	−9·1 19 17	25·6	19 03	1166	1101 02 44	65	4,3,3,3,2,3,4,4	26	1	82·8
14 *d*	13 48	573	428	12 00	145	13 32	24·2	−0·2 21 15	24·4	14 15	1194	1090 23 55	104	3,1,2,4,5,3,3,4	25	1	82·8
15 *d*	18 52	634	386	07 34	248	07 50	26·7	−11·7 19 25	38·4	15 23	1281	1055 02 42	226	4,4,5,4,5,4,5,1	32	2	83·0
16	21 45	544	457	11 40	87	13 51	15·8	−2·8 20 53) 22 20)	18·6	16 30	1155	1122 24 00	33	2,2,2,1,2,2,3,3	17	1	83·0
17	16 23	530	473	13 30	57	13 22	16·0	1·4 07 45	14·6	18 24	1147	1106 01 03	41	3,1,1,1,3,1,0,1	11	0	83·0
18	18 16	548	453	10 38	95	12 53	17·2	0·9 08 17	16·3	15 36	1149	1131 11 52	*18*	1,2,2,2,2,2,2,0	13	0	83·0
19 *q*	17 28	554	479	11 37	75	16 50	11·9	1·6 23 39	*10·3*	18 02	1147	1120 12 12	27	0,0,1,1,1,3,1,2	9	0	83·0
20 *q*	18 07	544	475	11 45	69	14 11	14·2	2·4 08 21	11·8	16 54	1151	1123 13 20	28	2,0,0,1,2,2,2,0	9	0	83·0
21 *q*	18 12	548	481	12 00	67	13 47	15·9	1·0 07 28	14·9	19 30	1143	1116 12 21	27	0,0,1,2,2,2,1,0	8	0	83·0
22	18 19	593	461	11 33	132	13 30	16·4	−2·1 07 04	18·5	18 43	1148	1123 10 20	25	1,0,3,3,2,3,4,2	18	1	83·0
23 *d*	16 53	*933*	*−1320*	23 25	*2253*	16 58	*62·6*	*−145·3* 23 38	*207·9*	17 00	*1495*	854 24 00	641	3,3,4,3,5,7,7,9	41	2	83·1
24 *d*	16 52	798	−262	00 23	1060	13 28	17·7	−60·5 00 27	78·2	16 22	1318	*601* 00 24	*717*	8,6,5,5,3,7,4,3	41	2	83·1
25	18 58	512	422	01 28	90	14 40	10·8	−8·0 01 36	18·8	15 13	1165	1059 02 00	106	4,3,2,1,2,1,0,1	14	1	83·1
26	18 43	548	478	04 28	70	14 10	14·5	−1·6 24 00	16·1	20 32	1167	1132 24 00	35	2,1,2,2,1,2,2,3	15	1	83·1
27	19 09	526	462	09 57	64	14 20	12·5	−9·1 01 31	21·6	19 50	1158	1089 01 18	69	4,2,1,1,2,1,1,1	13	1	83·1
28	18 50	595	482	10 45	113	15 43	15·3	−2·2 20 17	17·5	19 51	1192	1130 12 30	62	1,1,0,2,2,3,4,2	15	1	83·1
29	17 41	560	447	08 21	113	12 29	14·6	−2·8 07 33	17·4	22 15	1155	1117 12 00	38	2,1,3,2,2,2,2,2	16	1	83·1
30 *q*	17 48	550	483	10 43	67	13 06	16·1	−1·7 07 58	17·8	18 50	1149	1120 11 40	29	2,1,0,1,3,1,2,1	11	0	83·1
Mean	- -	581	375	- -	206	- -	18·8	−8·7 - -	27·5	- -	1183	1087 - -	97	-	-	0·77	82·8

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

131 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	526	526	525	525	520	513	497	505	496	482	477	481	493	500	514	530	549	560	563	552	533	520	521	522	518
2	521	528	511	514	518	520	517	505	497	484	478	475	482	499	509	526	539	556	559	548	540	534	528	537	518
3	529	515	520	526	530	521	511	498	485	474	473	481	496	509	517	533	541	544	552	564	542	531	528	528	519
4	553	536	524	530	531	529	528	525	509	487	496	513	505	516	526	531	524	532	553	549	530	528	521	522	525
5	522	523	524	525	522	531	527	520	509	493	481	485	493	508	520	528	539	544	556	564	568	549	533	536	525
6 *d*	540	533	537	556	560	560	502	564	553	533	512	505	507	505	518	528	557	564	561	545	545	544	600	555	*541*
7	564	572	582	567	572	497	485	483	486	479	482	484	451	470	482	516	522	525	536	529	526	532	531	528	517
8	526	524	519	532	540	504	493	512	514	504	490	473	456	482	501	517	521	532	531	540	548	540	540	536	516
9 *d*	508	521	523	516	504	516	517	474	497	494	467	455	471	501	520	593	614	603	608	546	513	491	498	507	519
10	505	505	498	505	504	490	506	521	502	485	470	465	485	492	514	533	533	549	553	549	548	548	556	552	515
11 *d*	539	536	512	536	544	524	513	458	394	521	497	498	502	473	509	509	531	580	540	536	532	525	524	526	515
12	521	520	521	524	529	528	532	519	509	486	483	491	497	492	510	522	527	526	533	544	529	529	528	525	518
13	528	521	525	513	529	529	525	512	500	496	498	500	505	513	517	518	525	537	536	544	538	537	533	533	521
14 *q*	529	537	533	525	527	527	524	520	516	508	505	513	527	533	537	536	540	539	539	540	544	537	537	537	530
15 *q*	540	540	536	534	530	526	517	511	505	494	490	497	516	517	528	533	540	543	550	551	544	544	545	542	528
16	539	536	537	536	536	537	540	541	536	521	511	513	530	516	536	544	548	551	562	540	539	541	540	539	536
17	548	548	540	540	545	544	540	540	532	517	509	504	509	512	533	553	573	561	541	551	539	539	538	537	537
18	537	540	526	544	540	528	520	509	470	475	490	501	493	509	521	536	537	551	549	545	539	539	536	540	524
19 *q*	537	533	533	533	533	529	523	513	505	497	493	499	504	517	533	539	545	539	545	548	548	543	542	540	528
20	537	537	537	534	536	537	534	525	517	506	497	495	505	510	528	540	556	566	581	588	582	556	513	516	535
21	510	510	497	521	523	509	493	489	481	461	471	481	493	481	486	551	563	577	576	589	564	530	525	529	517
22 *d*	520	517	520	502	493	502	442	414	478	475	454	482	454	458	504	533	579	580	564	575	542	516	539	517	*507*
23 *d*	517	486	536	509	518	511	504	497	471	475	487	486	468	497	505	542	571	626	635	552	541	536	530	493	521
24	505	521	501	493	489	486	494	493	494	486	477	473	490	501	532	575	579	576	557	556	537	526	521	536	517
25	529	507	501	517	517	505	496	493	480	482	481	483	485	486	510	548	557	569	576	544	531	537	544	524	517
26	520	521	532	533	525	518	505	497	490	481	485	498	498	516	530	537	548	544	536	540	540	541	531	525	520
27 *q*	525	526	529	532	531	522	509	500	495	494	502	497	500	510	529	537	538	556	556	557	553	552	533	534	526
28	533	529	528	525	524	536	525	510	500	496	488	486	494	498	524	544	544	560	553	560	556	533	529	528	525
29	536	530	520	526	527	513	513	497	490	484	493	504	506	510	517	521	544	556	571	560	557	544	538	534	525
30 *q*	528	541	530	533	533	532	525	515	500	491	492	504	517	527	537	553	552	557	554	560	556	540	526	529	531
31	516	514	521	536	544	513	533	502	490	498	497	493	498	505	502	513	525	548	565	571	557	544	537	535	523
Mean	529	527	525	527	528	521	513	505	497	492	*488*	491	495	502	518	536	547	557	*558*	553	544	536	534	531	523

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

132 ESKDALEMUIR (D) — 12° + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	6·8	6·8	6·2	6·2	5·1	3·6	4·9	2·1	-0·2	1·6	6·0	12·4	16·8	17·0	16·6	15·1	13·2	10·7	9·3	6·7	5·1	2·4	5·8	6·2	7·8
2	9·7	3·9	0·2	1·7	2·1	0·8	-0·7	0·7	1·5	3·2	8·6	14·2	16·3	16·9	15·7	13·5	10·9	7·5	7·3	7·7	8·0	8·0	7·6	5·5	7·1
3	3·3	4·4	5·5	6·2	6·0	2·2	0·1	-0·3	0·8	2·5	6·7	11·8	15·4	15·9	15·0	13·5	12·2	10·7	9·2	4·3	6·1	7·0	7·2	7·1	7·2
4	8·5	2·4	3·1	3·4	1·3	0·4	1·3	1·5	2·2	6·1	9·7	14·3	16·6	16·9	17·8	15·9	12·7	10·6	9·7	8·6	7·5	6·9	5·9	5·4	7·9
5	6·2	6·0	5·3	4·7	3·7	2·7	0·2	-0·2	0·7	3·1	6·5	9·5	12·1	14·4	15·0	13·3	12·6	10·7	9·7	9·7	9·7	5·7	2·4	6·4	7·1
6 *d*	7·4	6·0	11·0	8·7	4·0	7·0	14·2	15·3	9·6	6·8	7·1	10·5	11·5	12·4	11·3	10·7	11·2	10·7	10·1	8·6	8·0	8·9	2·5	1·6	9·0
7	6·1	5·2	4·8	5·2	5·2	17·1	20·2	6·2	2·5	1·8	3·6	9·0	12·2	13·5	12·9	13·3	12·8	10·4	9·5	7·6	7·3	7·9	7·3	5·4	8·6
8	6·8	7·7	9·4	9·4	9·5	12·9	23·2	15·8	9·7	4·5	5·5	8·1	10·9	12·0	12·6	12·3	10·5	9·0	7·2	7·7	3·5	4·3	2·5	2·3	*9·1*
9 *d*	4·3	2·5	3·1	7·0	3·3	-0·9	0·7	5·7	7·1	4·1	6·8	9·9	11·6	11·4	12·4	13·2	16·0	9·8	3·6	4·2	3·6	5·2	7·0	3·5	6·5
10	4·0	3·6	2·1	3·9	2·3	5·0	10·6	4·7	1·8	3·7	6·1	9·8	12·9	15·9	16·8	15·8	12·4	12·2	11·0	9·1	6·9	8·1	7·9	7·5	8·1
11 *d*	6·9	8·2	10·5	2·0	6·2	5·7	7·5	5·2	4·2	10·6	7·5	11·7	15·6	15·2	14·9	14·2	8·6	3·6	6·1	7·6	7·8	6·8	7·1	6·7	8·3
12	7·1	7·0	5·7	4·2	5·0	2·2	0·9	1·6	2·5	4·4	8·3	10·2	11·6	11·7	11·0	9·5	7·9	6·9	5·6	6·1	6·2	6·2	7·2	7·1	6·5
13	8·7	6·7	2·5	3·1	-0·9	1·3	0·6	0·5	1·7	2·7	5·4	7·9	9·6	10·6	10·5	9·7	9·6	8·7	7·5	7·5	6·9	4·4	1·5	6·9	5·6
14 *q*	6·2	8·3	7·6	5·8	3·5	2·5	0·8	1·0	2·5	5·2	7·8	10·5	13·0	13·6	13·3	11·6	10·5	8·9	7·9	7·1	7·3	7·0	7·1	7·0	7·3
15 *q*	6·9	6·4	5·4	5·2	3·4	2·2	0·8	1·2	3·7	5·6	9·4	12·0	15·1	15·7	14·3	11·3	9·6	8·8	8·3	7·9	7·9	7·7	7·9	5·9	7·6
16	5·3	5·2	5·4	5·2	5·6	6·2	3·7	2·4	2·9	3·3	5·9	8·0	10·0	11·0	11·3	10·2	9·1	8·3	8·3	6·3	6·9	7·5	7·0	7·2	6·8
17	8·6	9·7	4·2	6·0	10·4	1·0	-0·4	0·3	1·7	5·0	8·0	10·6	14·2	14·2	14·0	13·6	14·2	13·1	9·6	9·0	8·4	8·1	7·2	7·4	8·3
18	7·0	8·1	12·3	5·3	1·6	0·8	-0·9	-1·3	2·3	4·0	4·7	8·8	10·6	12·7	12·3	10·6	8·9	6·9	7·0	7·0	7·1	7·4	7·1	7·1	6·6
19 *q*	5·7	6·1	6·0	5·4	5·1	2·6	0·7	0·3	1·4	5·0	9·6	13·1	15·8	16·7	15·2	12·6	11·3	9·2	8·8	8·1	8·0	7·9	7·0	7·1	7·9
20	7·1	6·9	6·5	6·1	3·9	2·4	0·9	0·8	0·2	2·2	6·0	9·4	13·3	15·2	15·1	14·3	11·9	9·8	9·8	11·0	9·9	8·8	-2·0	-0·7	7·0
21	0·5	-1·2	6·2	3·5	1·5	0·3	4·7	7·3	1·8	4·5	8·8	11·1	14·1	15·2	17·2	13·9	15·2	17·2	10·1	12·8	10·9	7·5	5·1	5·4	8·1
22 *d*	2·8	2·6	1·6	2·1	-0·3	5·4	3·7	10·3	9·6	5·9	7·9	12·3	14·8	14·5	14·3	14·0	9·0	7·6	8·9	1·2	7·5	7·9	8·3	9·0	7·5
23 *d*	4·2	2·2	5·0	0·9	0·5	-1·6	-3·0	-0·7	-1·0	2·7	3·2	7·0	9·3	9·7	11·6	12·1	9·6	6·3	2·4	6·1	4·2	5·2	5·5	2·1	*4·1*
24	3·4	3·6	1·0	1·1	3·9	1·4	1·6	-1·0	0·2	3·4	7·9	11·5	14·2	16·1	16·5	11·6	14·0	12·5	11·6	9·1	7·9	7·0	6·9	7·1	7·2
25	0·4	1·3	8·1	5·0	3·6	2·7	0·6	-0·2	-2·0	-0·2	3·6	8·6	12·3	12·6	12·2	11·6	8·8	5·2	7·0	5·2	6·5	7·2	5·2	6·1	5·5
26	5·6	7·1	7·0	3·9	2·6	0·5	0·5	-0·3	0·3	2·8	8·4	11·3	13·4	14·2	13·0	11·9	9·9	7·3	6·2	6·9	7·2	5·8	6·0	6·8	6·6
27 *q*	6·5	5·0	5·3	5·3	4·3	1·8	-0·1	0·8	1·1	3·4	7·1	11·2	13·6	15·1	15·1	13·3	10·7	8·8	6·5	6·1	6·9	5·0	5·8	7·0	6·9
28	6·1	6·3	5·8	2·5	2·4	-1·0	-2·5	-2·8	-2·5	2·3	6·8	9·7	12·5	13·9	13·1	9·2	7·4	7·5	6·0	6·6	3·8	5·3	7·7	7·9	5·6
29	7·6	6·3	3·2	2·7	2·0	0·8	2·6	0·0	-0·1	4·9	9·3	12·9	14·9	15·4	14·6	12·2	11·1	9·8	8·8	7·0	6·1	6·7	5·5	4·7	7·0
30 *q*	4·3	5·2	3·9	3·4	2·9	2·0	0·8	0·0	-0·5	1·5	6·9	11·3	13·7	15·0	15·1	13·4	10·5	8·2	7·3	7·5	4·0	3·8	3·4	4·4	6·2
31	-1·6	-1·3	1·7	-1·8	0·1	3·8	0·5	-3·1	0·5	2·6	5·9	11·5	14·0	13·4	12·8	12·6	11·9	10·5	9·5	7·9	6·3	5·9	6·1	5·8	5·6
Mean	5·6	5·1	5·3	4·3	3·5	3·0	3·2	2·4	*2·1*	3·9	6·9	10·7	13·3	*14·1*	14·0	12·6	11·1	9·3	8·1	7·4	6·9	6·6	5·8	5·6	7·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

133 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1142	1142	1142	1142	1143	1144	1143	1137	1137	1131	1121	1117	1117	1123	1131	1141	1148	1159	1166	1171	1166	1153	1142	1141	*1142*
2	1136	1111	1119	1128	1137	1141	1142	1138	1130	1134	1122	1111	1110	1119	1134	1141	1147	1155	1156	1153	1148	1147	1146	1138	1135
3	1131	1137	1141	1137	1130	1135	1137	1137	1135	1125	1117	1110	1116	1123	1129	1136	1142	1147	1149	1153	1149	1147	1144	1144	1135
4	1135	1118	1123	1129	1129	1125	1125	1126	1124	1124	1119	1114	1118	1128	1138	1149	1159	1161	1165	1166	1165	1156	1153	1148	1137
5	1144	1143	1142	1141	1140	1136	1136	1135	1130	1123	1117	1111	1111	1117	1120	1128	1131	1136	1142	1140	1136	1142	1143	1138	1133
6 *d*	1136	1136	1131	1114	1109	1116	1122	1094	1104	1113	1116	1121	1124	1130	1137	1143	1143	1146	1147	1146	1143	1142	1124	1108	1127
7	1124	1126	1128	1123	1106	1099	1011	1034	1077	1111	1115	1118	1134	1138	1147	1147	1147	1147	1147	1147	1148	1147	1144	1141	*1121*
8	1136	1136	1137	1123	1108	1106	1076	1059	1063	1105	1109	1115	1129	1141	1138	1136	1138	1140	1154	1160	1162	1150	1131	1108	1123
9 *d*	1108	1108	1065	1077	1045	1072	1088	1099	1106	1122	1129	1135	1142	1167	1207	1240	1249	1235	1203	1178	1168	1153	1105	1129	1139
10	1137	1140	1143	1147	1147	1130	1099	1101	1117	1118	1113	1117	1119	1123	1129	1137	1144	1148	1144	1143	1142	1141	1140	1137	1131
11 *d*	1140	1136	1116	1101	1095	1106	1105	1107	1110	1102	1118	1118	1118	1134	1144	1159	1178	1191	1174	1158	1149	1150	1147	1142	1133
12	1142	1141	1142	1142	1141	1143	1139	1141	1140	1137	1134	1130	1131	1136	1141	1143	1149	1149	1148	1147	1144	1143	1142	1142	1141
13	1135	1119	1114	1111	1124	1130	1134	1136	1137	1135	1131	1129	1129	1130	1135	1137	1142	1142	1143	1143	1143	1147	1147	1137	1134
14 *q*	1136	1134	1130	1136	1141	1142	1142	1138	1135	1129	1120	1116	1116	1122	1125	1129	1130	1136	1137	1137	1135	1137	1137	1137	1132
15 *q*	1136	1136	1136	1137	1138	1136	1136	1132	1132	1129	1123	1117	1118	1122	1129	1135	1138	1142	1141	1140	1138	1137	1136	1136	1133
16	1136	1136	1136	1137	1136	1134	1130	1130	1130	1129	1130	1125	1126	1134	1130	1132	1136	1141	1147	1156	1149	1143	1141	1137	1136
17	1135	1126	1122	1119	1106	1113	1123	1126	1128	1126	1122	1116	1119	1129	1137	1146	1162	1183	1173	1156	1147	1142	1140	1137	1135
18	1137	1136	1125	1105	1105	1113	1123	1130	1130	1119	1118	1119	1130	1138	1147	1158	1165	1161	1154	1146	1141	1137	1136	1135	1134
19 *q*	1136	1136	1137	1137	1138	1136	1136	1134	1129	1117	1108	1106	1110	1124	1131	1143	1146	1143	1141	1138	1138	1137	1136	1135	1132
20	1135	1135	1136	1137	1138	1138	1136	1136	1133	1132	1125	1117	1117	1119	1127	1134	1137	1140	1142	1142	1143	1144	1101	1110	1131
21	1107	1083	1090	1113	1134	1131	1118	1111	1113	1125	1122	1119	1125	1142	1155	1177	1184	1174	1183	1172	1155	1149	1155	1143	1137
22 *d*	1136	1137	1141	1135	1033	1028	1057	1065	1075	1101	1112	1123	1155	1160	1165	1177	1199	1209	1191	1189	1168	1159	1138	1105	1132
23 *d*	1101	1041	1063	1092	1120	1137	1142	1137	1131	1135	1135	1133	1143	1147	1144	1156	1177	1190	1182	1167	1166	1154	1119	1114	1134
24	1106	1099	1101	1094	1107	1116	1123	1130	1132	1126	1126	1122	1125	1135	1120	1177	1185	1189	1177	1166	1159	1153	1142	1111	1134
25	1095	1107	1094	1105	1111	1123	1134	1138	1141	1137	1131	1129	1128	1130	1130	1141	1159	1171	1162	1158	1149	1142	1125	1119	1132
26	1122	1118	1107	1095	1117	1130	1135	1135	1131	1122	1113	1107	1111	1119	1130	1135	1142	1149	1149	1143	1142	1139	1140	1138	1128
27 *q*	1138	1137	1137	1138	1141	1143	1143	1142	1136	1132	1124	1118	1120	1126	1129	1134	1137	1141	1146	1147	1144	1142	1140	1137	1136
28	1136	1136	1126	1125	1123	1116	1117	1113	1109	1106	1106	1107	1112	1124	1137	1153	1160	1159	1159	1150	1143	1138	1137	1137	1130
29	1132	1126	1128	1131	1136	1136	1129	1123	1117	1110	1105	1110	1115	1126	1137	1139	1138	1142	1146	1153	1150	1143	1142	1142	1131
30 *q*	1141	1131	1129	1131	1136	1137	1141	1142	1141	1131	1118	1106	1107	1116	1125	1135	1141	1148	1148	1144	1147	1147	1146	1140	1135
31	1128	1122	1115	1100	1092	1090	1091	1104	1099	1099	1100	1112	1118	1128	1137	1147	1153	1155	1156	1150	1149	1148	1143	1141	1124
Mean	1130	1125	1123	1122	1119	1122	1120	1120	1121	1122	1119	*1118*	1122	1131	1137	1148	1155	*1159*	1157	1153	1149	1145	1137	1133	1133

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

134 ESKDALEMUIR — MAY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices K	Sum of K indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +		Minimum 12° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1	18 58	573	474	10 55	99	13 08	17·7	−0·4	08 22	18·1	19 54	1173	1113	12 00	60	0,2,2,1,2,2,3,2	14	0	83·1
2	17 42	564	473	11 30	91	13 18	17·7	−1·8	06 45	19·5	17 52	1158	1105	12 00	53	4,1,1,2,2,3,2,2	17	1	83·1
3	18 59	584	471	10 26	113	13 17	16·6	−1·2	06 56	17·8	19 39	1155	1107	11 33	48	2,1,1,1,1,1,3,2	12	0	83·1
4	00 40	571	474	09 29	97	14 00	18·6	−0·1	01 43	18·7	19 10	1167	1113	11 30	54	3,1,2,3,2,3,2,1	17	1	83·1
5	19 57	584	480	10 41	104	14 11	15·2	−1·0	07 20	16·2	22 11	1149	1110	12 11	39	1,1,1,1,2,2,3,3	14	0	83·1
6 *d*	22 33	*705*	457	06 50	248	22 29	19·6	*−20·1*	22 50	*39·7*	19 30	1149	1090	07 25	59	2,4,5,4,3,4,3,5	30	1	83·1
7	04 20	599	422	12 39	177	05 51	*28·4*	−4·5	08 35	32·9	20 20	1149	*1004*	06 26	145	3,5,5,3,4,2,2,2	26	2	83·2
8	23 50	571	419	06 12	152	06 20	26·8	0·6	23 35	26·2	20 04	1168	1052	06 35	116	2,4,5,3,4,3,3,4	28	1	83·2
9 *d*	15 04	673	435	11 39	238	16 21	23·4	−5·3	18 11	28·7	16 26	*1262*	1033	04 22	*229*	4,3,4,4,5,5,5,4	34	2	83·2
10	22 51	592	451	11 18	141	14 52	18·3	0·1	08 08	18·2	03 00) 17 10)	1149	1094	06 43	55	2,3,3,3,3,3,2,3	22	1	83·2
11 *d*	17 20	611	*340*	08 33	*271*	08 47	25·8	−7·4	08 27	33·2	17 08	1197	1089	04 41	108	4,4,5,4,5,5,1,2	30	1	83·2
12	19 21	568	467	10 11	101	12 56	13·3	−1·0	06 13	14·3	16 54	1153	1128	11 26	*25*	2,2,2,2,2,2,3,1	16	0	83·2
13	20 06	553	490	10 58	63	13 40	11·5	−2·1	04 10	13·6	22 09	1148	1105	03 42	43	3,3,1,1,2,1,2,3	16	0	83·2
14 *q*	14 52	553	502	10 20	*51*	14 04	14·3	0·6	06 40	13·7	06 31	1143	1111	12 20	32	2,1,1,1,1,2,1,0	9	0	83·2
15 *q*	18 17	560	485	10 27	75	12 28	16·2	0·6	07 20	15·6	17 15	1143	1116	11 47	27	1,1,1,2,2,2,1,2	12	0	83·2
16	18 38	568	497	13 40	71	13 44	12·4	1·7	07 49	*10·7*	19 39	1159	1124	12 05	35	1,2,2,2,3,1,3,2	16	0	83·2
17	17 10	604	486	14 00	118	13 00	16·7	−2·0	06 30	18·7	17 43	1188	1100	04 45	88	3,3,2,2,4,4,3,1	22	1	83·2
18	17 46	562	462	08 50	100	02 30	14·6	−3·7	06 48	18·3	16 46	1166	1099	04 00	67	3,3,3,3,3,3,1,1	20	1	83·2
19 *q*	16 31	553	490	10 41	63	13 33	17·0	−0·2	07 50	17·2	16 43	1147	1103	12 00	44	1,1,0,1,2,2,1,1	9	0	83·2
20	19 17	607	493	10 50	114	14 01	15·8	−6·5	22 12	22·3	21 11	1153	1093	22 40	60	0,1,1,1,1,3,3,4	14	1	83·3
21	18 50	608	451	09 29	157	17 05	18·6	−7·0	01 43	25·6	18 35	1190	1076	01 30	114	4,3,3,3,4,4,4,3	28	1	83·3
22 *d*	16 49	616	376	07 10	240	12 57	17·7	−9·2	04 45	26·9	17 40	1215	1011	04 31	204	2,5,5,4,4,4,4,4	32	2	83·4
23 *d*	17 56	674	435	12 17	239	15 06	13·7	−6·9	06 48	20·6	17 50	1207	1013	01 42	194	4,4,3,3,4,5,5,4	32	2	83·4
24	15 32	595	456	11 18	139	14 20	19·6	−3·1	00 01	22·7	16 56	1194	1087	00 58	107	3,3,3,3,4,3,3,3	25	1	83·5
25	17 50	583	470	08 51	113	12 36	13·5	−3·5	00 32	17·0	17 24	1172	1087	00 08	85	4,3,2,2,3,3,3,3	23	1	83·6
26	16 02	560	470	10 14	90	13 28	15·1	−2·1	06 41	17·2	17 50	1154	1092	03 03	62	3,3,2,2,3,3,1,2	19	1	83·6
27 *q*	21 39	564	491	11 30	73	14 37	15·5	−1·0	06 40	16·5	19 46	1149	1117	11 40	32	1,1,2,2,2,2,1,3	14	0	83·6
28	20 30	572	479	11 34	93	13 53	14·5	−4·3	08 12	18·8	16 30	1161	1105	09 40	56	2,2,2,2,2,2,2,3	17	1	83·6
29	18 42	580	481	09 36	99	13 00	16·1	−1·5	07 58	17·6	19 46	1157	1102	10 30	55	2,2,2,2,2,2,3,2,2	17	1	83·6
30 *q*	19 50	568	489	10 10	79	13 52) 14 48)	16·1	−0·8	08 24	16·9	17 51	1152	1105	11 50	47	2,1,1,2,3,2,2,2	15	0	83·5
31	18 30	583	477	08 08	106	13 06	15·2	−6·7	03 35	21·9	18 42	1159	1082	06 18	77	2,4,3,2,3,3,2,2	21	1	83·5
Mean	- -	589	463	- -	126	- -	17·3	−3·2	- -	20·5	- -	1167	1089	- -	78	-	-	0·77	83·3

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

135 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	541	537	534	532	530	526	531	528	517	503	495	492	490	502	520	533	548	548	556	561	552	544	544	544	529
2 *q*	544	544	531	537	538	544	544	533	518	505	497	495	493	498	509	526	544	560	569	564	556	548	543	541	533
3 *q*	540	544	541	540	541	540	535	524	513	507	501	504	515	521	529	535	540	552	557	552	551	548	545	544	534
4	546	545	544	545	544	539	532	532	531	513	508	502	510	504	500	536	556	549	560	557	550	547	546	545	535
5	542	540	540	541	544	540	532	525	515	506	500	500	504	521	533	546	557	557	557	559	596	586	568	564	541
6	533	556	540	544	545	544	536	520	500	484	482	482	517	486	493	524	535	544	556	556	555	550	549	549	528
7 *d*	556	552	547	546	545	545	541	544	543	533	521	518	483	552	550	563	622	589	553	548	532	518	517	506	543
8 *d*	496	497	497	528	517	510	500	489	486	487	491	485	500	505	541	485	544	534	569	567	576	572	584	539	521
9	528	537	531	518	513	506	510	505	509	490	494	501	516	530	521	559	552	557	537	537	537	540	537	531	525
10	526	527	530	529	529	524	510	506	504	494	490	497	503	497	521	530	575	529	575	560	549	540	536	532	526
11	536	540	545	540	536	539	529	501	500	501	504	510	493	521	516	530	544	541	560	565	560	557	555	553	532
12 *d*	555	553	556	560	555	552	551	541	521	513	498	500	498	513	588	604	589	595	579	549	529	536	553	514	546
13	532	528	537	549	549	522	516	527	517	498	473	490	498	493	524	539	549	556	556	560	553	541	539	538	529
14	537	540	540	539	535	526	519	508	493	505	509	509	515	517	528	559	572	575	584	567	538	533	533	528	534
15	531	533	535	539	540	540	530	501	510	497	497	504	511	517	533	522	546	555	559	560	568	546	543	541	532
16	542	540	537	540	544	544	534	517	506	514	490	504	495	521	510	549	569	592	580	602	591	553	531	528	539
17	446	469	500	540	536	509	547	509	485	478	470	471	469	487	516	530	541	541	560	560	552	552	549	529	514
18	525	536	530	529	530	521	521	508	489	466	463	481	495	507	530	551	553	599	578	574	557	542	526	547	527
19 *d*	534	509	545	525	504	473	481	477	433	425	438	459	461	499	533	572	555	560	580	578	547	538	523	518	*511*
20	521	517	511	509	513	522	513	496	483	474	474	481	494	529	542	542	545	549	558	571	554	539	528	523	520
21	526	521	521	509	521	532	521	482	481	482	492	484	481	500	515	537	545	539	562	579	571	551	541	530	522
22	517	533	518	532	533	529	517	509	498	498	500	498	502	527	522	538	557	534	554	577	554	535	533	529	527
23 *q*	524	525	526	528	530	525	509	490	504	498	485	484	495	506	521	534	538	540	540	538	538	537	536	535	520
24 *q*	534	536	537	538	538	534	530	530	528	521	517	521	518	527	537	541	542	549	551	551	554	550	550	545	537
25	543	542	539	538	549	545	535	521	508	505	513	509	497	497	510	537	578	565	568	538	534	537	538	539	533
26	545	542	529	530	529	530	518	510	504	494	501	506	513	525	573	579	582	564	546	544	542	538	545	539	535
27	535	534	537	541	545	543	527	501	501	509	521	521	515	510	526	529	545	562	570	607	578	567	570	551	539
28	551	552	550	557	558	548	530	517	513	519	517	521	526	540	547	557	566	575	586	577	571	539	542	537	546
29 *d*	553	551	547	547	553	527	514	502	499	498	498	515	537	551	581	632	653	675	662	611	537	501	501	505	552
30 *q*	505	509	513	514	517	509	494	485	480	472	468	480	489	485	509	522	529	537	538	542	546	537	537	535	*511*
Mean	531	533	533	535	535	530	524	511	503	496	*494*	497	501	513	529	545	559	561	*565*	564	554	544	541	535	531

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

136 ESKDALEMUIR (D) — 12° + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	5·7	4·7	4·7	4·7	3·9	4·5	2·0	−2·6	−2·5	0·2	3·4	7·1	11·0	14·2	15·1	13·7	11·5	9·9	8·4	5·2	6·9	7·1	6·5	7·6	6·4
2 *q*	6·1	7·2	9·7	6·8	4·3	1·6	0·2	−0·7	−0·9	−0·7	2·8	6·1	9·6	12·2	13·8	13·7	12·2	10·4	9·4	7·9	7·9	7·7	7·5	7·2	6·7
3 *q*	7·0	7·0	6·2	5·4	4·1	1·9	0·0	−1·6	−1·4	1·8	6·8	10·0	12·8	14·6	14·6	13·3	11·5	9·4	7·9	7·0	7·0	7·3	7·2	7·0	6·9
4	7·1	7·2	7·1	6·1	5·2	1·4	−1·5	−2·4	−0·7	1·3	4·5	9·2	13·5	15·1	15·9	14·9	12·8	10·4	9·4	8·4	8·0	8·1	7·8	7·1	7·3
5	6·8	6·5	5·9	5·2	3·9	2·5	1·1	0·0	0·1	1·0	4·3	8·0	11·8	12·9	12·7	12·1	10·4	8·9	7·9	7·8	11·0	7·2	5·4	7·2	6·7
6	8·8	6·3	2·4	1·7	1·6	0·3	−0·6	−0·7	0·7	4·1	7·9	12·2	14·7	14·4	15·0	12·8	10·4	8·2	7·2	7·0	7·8	7·2	7·0	7·0	6·8
7 *d*	9·6	9·7	6·1	5·2	4·3	3·1	1·7	0·7	1·6	2·3	6·1	9·4	15·6	15·1	16·7	15·8	16·8	11·4	11·5	11·5	4·5	7·0	6·6	5·1	*8·2*
8 *d*	5·4	8·7	11·5	6·3	3·4	−0·1	−0·3	0·0	1·6	1·0	4·1	10·3	13·2	16·6	20·6	16·0	16·8	11·6	11·4	9·9	10·6	9·8	−0·1	1·8	7·9
9	4·7	5·1	9·7	5·2	4·9	7·0	7·6	6·8	6·4	7·0	7·1	8·1	10·7	11·7	12·3	12·5	10·8	9·8	8·4	7·1	7·5	7·3	5·4	7·0	7·9
10	6·2	6·1	4·8	4·0	2·0	0·4	−0·2	0·5	1·6	3·3	5·4	8·5	10·9	12·0	12·5	12·4	9·8	8·6	9·4	8·2	8·3	8·0	7·2	6·6	6·5
11	6·8	6·3	6·1	5·5	7·8	4·6	2·9	1·7	3·5	4·3	8·0	9·9	11·6	11·3	11·1	10·1	9·7	9·4	8·6	8·0	7·8	7·7	7·2	7·0	7·4
12 *d*	7·2	7·0	7·5	6·3	6·4	3·3	−2·0	0·7	1·5	3·9	7·5	8·8	13·2	14·4	15·6	7·9	9·9	11·3	8·8	6·0	7·1	5·0	2·3	5·1	6·9
13	2·7	1·7	−0·8	−2·7	2·0	4·5	1·4	−1·4	−0·7	2·0	4·9	6·8	10·4	11·5	10·3	9·7	8·8	8·7	7·6	7·0	7·2	6·8	6·5	6·3	5·1
14	5·7	5·5	5·0	2·6	2·8	3·5	2·5	4·2	5·3	6·3	7·0	9·7	12·1	12·5	11·9	10·5	10·1	8·8	8·5	6·9	7·7	8·1	7·6	6·8	7·1
15	6·1	6·2	6·3	6·7	6·7	4·0	2·6	4·5	3·1	4·2	6·2	9·5	12·2	13·7	14·3	13·0	10·6	8·5	7·2	6·0	5·3	7·4	7·1	7·4	7·5
16	7·9	7·0	5·3	5·4	3·3	0·7	−0·1	−0·4	1·8	1·8	2·6	7·2	9·8	12·5	13·3	12·6	11·6	10·4	7·8	7·7	5·2	5·0	3·8	−4·1	5·8
17	−8·4	−5·9	3·3	−7·4	−2·7	3·5	0·7	−3·1	−1·7	0·7	5·2	9·2	10·8	13·5	14·7	13·8	12·8	10·1	9·3	7·4	8·0	7·9	2·3	3·9	*4·5*
18	7·0	7·8	4·4	1·0	−0·6	−0·2	−2·2	−2·9	−2·0	1·1	2·1	5·6	9·2	12·0	13·5	13·6	13·5	11·0	7·3	8·1	5·6	1·7	0·7	0·7	4·9
19 *d*	−0·3	1·1	−2·8	−0·9	−3·5	−1·4	2·3	1·9	3·7	7·2	11·1	11·9	15·6	14·8	12·7	10·2	11·5	11·0	10·6	11·9	6·9	6·5	4·8	6·2	6·4
20	7·0	4·8	2·7	4·3	2·6	1·8	−0·5	−1·1	0·5	2·7	5·7	8·2	9·7	11·3	10·7	9·3	8·3	8·1	8·2	5·6	6·5	6·8	6·2	6·0	5·6
21	6·4	6·6	5·2	3·6	4·1	4·6	−0·2	−2·5	1·9	2·7	3·4	6·3	9·0	10·6	10·2	10·5	9·5	6·5	7·3	7·3	6·2	2·1	5·4	2·1	5·4
22	0·1	0·2	1·9	2·3	1·8	0·9	−0·7	−0·5	0·1	2·3	5·5	8·9	10·1	12·7	12·4	11·8	12·0	8·3	8·4	6·4	6·6	5·6	6·3	6·2	5·4
23 *q*	5·4	4·8	4·3	3·3	2·8	1·1	0·0	2·1	3·6	2·8	3·7	7·2	10·1	11·6	11·4	9·9	7·7	6·9	6·6	7·0	6·9	6·0	5·6	5·3	5·7
24 *q*	5·4	5·5	5·5	4·5	3·7	2·6	1·9	1·7	0·9	1·2	3·5	7·0	10·5	12·9	12·6	10·5	8·9	8·1	7·7	7·1	7·3	6·5	5·9	6·1	6·1
25	6·4	4·2	3·9	3·9	5·4	0·2	−2·4	0·3	−0·7	3·8	4·7	7·5	10·9	12·3	11·0	11·2	10·9	6·6	5·9	6·9	7·8	7·5	7·3	6·9	5·9
26	5·7	4·4	4·7	6·5	7·4	3·9	1·7	0·8	2·4	3·9	5·6	9·0	11·6	13·4	16·0	14·1	10·8	8·2	5·6	7·5	8·4	8·3	8·3	4·7	7·2
27	6·7	6·1	4·6	3·7	2·9	3·9	2·9	7·3	7·6	7·7	5·4	5·4	8·5	10·8	12·4	11·1	10·0	9·9	10·5	10·2	4·4	5·6	6·2	2·3	6·9
28	3·8	3·6	3·2	3·0	1·2	−0·7	0·1	3·5	3·7	2·8	2·8	5·5	9·3	12·5	13·5	13·8	12·8	12·1	11·6	10·4	9·0	4·4	5·7	3·8	6·3
29 *d*	1·9	0·2	−0·1	−1·6	−5·4	−3·5	−5·8	−1·6	2·6	3·8	8·4	11·8	18·9	20·0	20·5	18·9	16·3	13·1	14·8	6·2	1·8	−0·8	4·3	6·5	6·8
30 *q*	5·3	3·4	2·6	2·2	2·6	1·9	2·7	1·3	1·0	2·6	5·7	9·3	12·2	13·2	13·0	11·9	10·4	9·1	7·1	7·3	8·1	7·3	7·8	7·5	6·5
Mean	5·2	5·0	4·7	3·4	3·0	2·1	0·6	*0·5*	1·5	3·0	5·4	8·5	11·7	13·2	*13·7*	12·4	11·3	9·5	8·7	7·7	7·1	6·4	5·7	5·3	6·5

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

137 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1131	1129	1133	1135	1135	1135	1135	1135	1135	1131	1129	1129	1129	1130	1131	1134	1140	1146	1146	1150	1146	1140	1137	1136	1136
2 q	1136	1135	1132	1129	1132	1134	1132	1131	1133	1134	1128	1122	1119	1122	1124	1131	1138	1147	1150	1149	1145	1141	1137	1136	1134
3 q	1136	1136	1136	1137	1138	1139	1139	1137	1135	1130	1118	1114	1121	1129	1135	1136	1141	1143	1143	1141	1137	1135	1135	1134	1134
4	1134	1135	1135	1136	1137	1139	1137	1132	1131	1125	1118	1114	1116	1129	1135	1137	1146	1147	1143	1140	1137	1135	1135	1135	1134
5	1135	1136	1136	1137	1138	1140	1136	1135	1131	1125	1123	1123	1119	1119	1120	1129	1137	1146	1148	1144	1132	1135	1125	1124	1132
6	1112	1114	1126	1134	1137	1137	1137	1137	1131	1119	1114	1118	1123	1140	1140	1142	1143	1144	1142	1142	1139	1137	1135	1134	1132
7 d	1130	1122	1128	1134	1136	1136	1135	1129	1129	1133	1126	1116	1119	1143	1201	1213	1256	1279	1247	1204	1190	1165	1148	1141	*1161*
8 d	1124	1095	1060	1088	1111	1130	1137	1137	1134	1129	1125	1119	1118	1123	1135	1154	1150	1159	1149	1147	1140	1143	1118	1123	1127
9	1130	1131	1124	1094	1096	1105	1113	1119	1119	1124	1124	1126	1134	1149	1160	1172	1184	1173	1171	1164	1154	1144	1136	1133	1137
10	1136	1137	1138	1138	1141	1142	1141	1137	1135	1130	1125	1128	1131	1137	1137	1147	1165	1162	1148	1147	1143	1142	1141	1141	1140
11	1138	1138	1137	1138	1134	1129	1129	1129	1126	1124	1120	1117	1125	1129	1136	1137	1143	1149	1148	1146	1141	1137	1137	1136	1134
12 d	1136	1136	1135	1135	1131	1128	1129	1126	1129	1120	1123	1126	1135	1147	1165	1195	1215	1220	1219	1207	1184	1162	1110	1123	1151
13	1121	1111	1087	1077	1075	1081	1099	1112	1119	1122	1130	1129	1130	1125	1123	1137	1154	1159	1160	1156	1153	1148	1143	1141	1125
14	1140	1139	1137	1138	1138	1136	1135	1129	1129	1129	1126	1122	1125	1134	1141	1142	1148	1156	1155	1155	1149	1142	1139	1138	1138
15	1137	1137	1137	1137	1136	1136	1137	1135	1126	1124	1119	1118	1123	1131	1139	1143	1143	1147	1150	1153	1148	1144	1141	1137	1137
16	1136	1137	1137	1137	1137	1138	1136	1131	1117	1112	1113	1112	1117	1117	1123	1128	1136	1142	1151	1155	1160	1137	1134	1093	1131
17	1033	1063	1017	1047	1069	1063	1075	1101	1116	1124	1124	1126	1129	1129	1129	1132	1137	1141	1142	1144	1143	1141	1138	1135	*1108*
18	1128	1093	1077	1105	1119	1121	1128	1130	1129	1126	1119	1117	1114	1118	1123	1136	1149	1172	1178	1161	1154	1148	1129	1093	1128
19 d	1081	1039	1041	1046	1081	1101	1100	1107	1111	1116	1119	1114	1135	1142	1158	1174	1174	1161	1159	1155	1147	1130	1129	1126	1119
20	1117	1108	1119	1125	1126	1130	1135	1136	1135	1131	1130	1128	1125	1129	1135	1140	1143	1146	1144	1148	1147	1144	1142	1141	1133
21	1135	1117	1111	1117	1124	1114	1119	1124	1123	1124	1125	1124	1126	1129	1126	1126	1132	1144	1144	1149	1149	1147	1137	1129	1129
22	1116	1103	1111	1119	1130	1137	1141	1141	1141	1135	1129	1122	1120	1119	1122	1125	1134	1143	1143	1149	1150	1148	1142	1138	1132
23 q	1137	1136	1135	1136	1137	1140	1138	1129	1124	1123	1123	1120	1118	1120	1123	1126	1130	1135	1137	1137	1136	1136	1136	1135	1131
24 q	1135	1132	1134	1136	1137	1141	1137	1135	1130	1131	1130	1120	1117	1121	1125	1128	1135	1137	1138	1137	1135	1136	1135	1134	1132
25	1129	1125	1128	1128	1116	1107	1112	1115	1118	1119	1120	1117	1120	1122	1123	1135	1144	1159	1163	1153	1141	1136	1135	1135	1129
26	1130	1124	1124	1129	1126	1124	1124	1128	1126	1123	1117	1110	1107	1113	1136	1159	1183	1195	1189	1168	1155	1147	1140	1131	1138
27	1130	1131	1136	1137	1137	1135	1134	1131	1124	1119	1124	1129	1130	1137	1142	1148	1149	1147	1143	1142	1154	1160	1152	1147	1138
28	1141	1139	1138	1137	1134	1136	1134	1130	1129	1117	1116	1118	1119	1118	1118	1120	1125	1131	1135	1136	1138	1147	1138	1136	1130
29 d	1130	1124	1122	1119	1112	1112	1105	1104	1096	1099	1105	1107	1122	1144	1169	1198	1232	1219	1165	1168	1147	1130	1135	1144	1138
30 q	1140	1146	1148	1147	1144	1146	1147	1149	1147	1143	1138	1128	1128	1131	1138	1147	1158	1161	1164	1158	1150	1148	1144	1142	1145
Mean	1127	1122	*1119*	1122	1125	1126	1128	1128	1127	1125	1123	1120	1123	1129	1137	1146	1155	*1160*	1157	1153	1148	1143	1136	1132	1134

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

138 ESKDALEMUIR — JUNE

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices K	Sum of K indices	Magnetic character of day (0-2)	Temperature in magnetic house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +	Minimum 12° +	Range	Maximum 44,000γ +	Minimum 44,000γ +	Range					
	h. m.	γ	γ	h. m.	γ	h. m. ′	′ h. m.	′	h. m. γ	γ h. m.	γ					°A.
1	19 22	570	482	12 06	88	14 09 16·2	−3·9 08 11	20·1	19 04 1153	1126 10 32	27	1,2,2,2,2,2,2,1	14	0	83·5
2 q	18 23	573	485	12 19	88	14 51 14·3	−2·4 09 03	16·7	18 57 1153	1117 12 32	36	2,2,2,2,2,3,2,0	15	0	83·5
3 q	18 24	561	498	10 19	63	13 29 15·2	−2·2 08 01	17·4	17 20 1144	1112 11 23	32	1,0,1,2,1,1,1,0	7	0	83·5
4	16 21	569	482	13 50	87	14 25 16·6	−3·8 06 40	20·4	17 01 1149	1113 11 58	36	0,2,2,2,3,3,1,0	13	1	83·5
5	20 18	647	494	11 16	153	13 28 13·5	−0·4 07 58	13·9	18 22 1150	1117 12 30	33	0,0,0,1,2,1,4,3	11	1	83·5
6	20 04	570	460	11 05	110	14 10 16·0	−3·0 07 53	19·0	17 45 1146	1109 00 29	37	3,2,2,3,4,2,2,1	19	1	83·5
7 d	17 02	655	411	12 15	244	14 39 23·4	−4·8 09 50	28·2	16 56 *1297*	1110 11 40	187	3,1,3,4,6,5,4,3	29	2	83·6
8 d	22 20	624	442	15 18	182	14 39 *25·2*	−4·8 22 17	30·0	17 31 1165	1047 02 46	118	4,4,2,4,5,5,3,4	31	1	83·6
9	15 45	584	484	03 15	100	15 10 15·2	0·3 03 33	14·9	16 24 1185	1086 03 57	99	3,3,3,2,3,3,3,2	22	1	83·6
10	16 16	588	481	13 40	107	14 44 13·4	−1·4 07 05	14·8	17 11 1170	1124 10 19	46	1,2,2,2,3,4,3,1	18	1	83·6
11	18 32	572	484	12 21	88	12 51 12·5	−0·3 08 00	12·8	17 33 1153	1116 11 19	37	2,2,2,3,3,3,3,2	20	1	83·9
12 d	15 16	647	479	23 10	168	14 15 16·8	−6·7 22 10	23·5	17 37 1221	1117 09 50	104	1,3,2,3,5,4,4,4	26	1	83·9
13	03 40	576	457	12 56	119	12 44 13·2	−4·0 03 57	17·2	18 18 1163	1070 04 39	93	3,3,3,3,4,3,2,1	22	1	83·9
14	18 43	595	473	08 27	122	12 55 13·5	0·7 04 37	12·8	19 10 1159	1120 11 40	39	2,2,3,2,2,2,3,1	17	1	83·9
15	20 22	580	490	10 18	90	14 19 15 8	2·3 06 40	13·5	19 28 1153	1117 11 10	36	1,1,2,2,3,3,2,1	15	1	83·9
16	19 18) 20 16)	615	458	23 58	157	13 47 14·2	−9·2 23 35) 23 42)	23·4	20 05 1166	1063 24 00	103	1,1,2,3,3,3,3,5	21	1	83·9
17	04 19	572	432	00 40	140	14 05 15·0	*−15·3* 01 01	30·3	19 49 1147	*1000* 02 20	147	5,5,4,2,3,1,2,3	25	1	84·0
18	16 55	643	449	10 06	194	15 16 14·8	−4·6 07 09	19·4	18 09 1182	1071 02 07	111	3,2,3,3,3,4,3,4	25	1	84·1
19 d	18 49	615	*395*	09 02	220	18 50 18·1	−7·1 02 44	25·2	15 53 1183	1027 01 42	156	4,4,4,4,5,4,4,4	33	1	84·1
20	15 55	578	461	10 50	117	14 21 12·2	−2·8 07 54	15·0	19 34 1149	1105 01 40	44	3,2,2,3,4,3,3,2	22	1	84·1
21	19 04	611	468	08 50	143	14 13 11·2	−4·2 07 33	15·4	20 10 1154	1107 02 49	47	2,3,3,2,3,3,3,3	22	1	84·1
22	19 26	586	485	12 18	101	13 46 14·5	−2·8 01 51	17·3	20 03 1154	1099 01 42	55	3,2,2,2,3,3,4,1	20	1	84·1
23 q	18 39	550	477	11 03	73	14 00 12·0	−1·6 06 36	13·6	05 39 1142	1117 12 55	*25*	1,1,3,2,2,1,1,0	11	0	84·1
24 q	18 23	575	513	10 38	*62*	13 47 13·4	0·5 09 03	12·9	05 35 1142	1113 12 11	29	0,1,2,1,1,1,3,2	11	0	84·1
25	18 00	589	489	13 34	100	13 17 12·7	−3·4 06 16	16·1	18 31 1165	1107 05 02	58	2,2,2,2,3,3,3,1	18	1	84·1
26	16 10	619	485	13 12	134	14 12 17·2	−0·1 07 04	17·3	17 50 1196	1104 12 50	92	2,2,2,2,4,4,2,3	21	1	84·0
27	19 35	635	491	07 48	144	14 30 13·0	1·1 06 00	*11·9*	21 23 1166	1118 09 51	48	2,2,3,3,3,4,4,4	25	1	84·0
28	18 20) 18 38)	607	502	08 14	105	15 38 14·7	−6·3 06 07	21·0	21 20 1149	1113 10 05	36	2,3,3,2,3,3,3,2	21	1	84·0
29 d	18 01	*756*	485	10 01	*271*	13 57 24·3	−10·7 04 50	*35·0*	16 43 1254	1065 08 55	*189*	2,3,4,3,4,5,6,4	31	2	84·0
30 q	20 44	557	464	10 01	93	14 23 13·9	0·2 08 02	13·7	18 42 1166	1123 12 00	43	2,2,2,2,3,3,2,0	16	0	84·0
Mean	- -	601	472	- -	129	- - 15·4	−3·4 - -	18·8	- - 1169	1098 - -	71	-	-	0·87	83·9

q denotes an international quiet day and *d* an international disturbed day

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

139 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	528	525	527	533	537	532	520	510	500	489	484	489	501	511	542	553	548	547	550	553	553	546	545	539	528
2	537	541	545	549	551	551	530	498	504	493	497	493	489	514	536	540	538	544	554	559	554	549	543	540	531
3	535	545	548	551	547	553	548	498	505	489	481	517	526	525	546	541	562	562	564	555	556	550	550	545	537
4 *q*	542	537	533	534	531	531	525	515	505	490	486	480	487	509	533	549	550	543	549	547	546	546	541	538	527
5 *q*	536	533	532	530	533	533	526	513	505	496	489	494	512	537	529	539	537	533	542	549	549	546	544	540	528
6	541	541	546	545	542	542	542	537	524	519	511	515	513	521	514	538	554	553	551	559	562	546	541	538	537
7 *d*	535	541	541	562	579	520	554	530	529	517	498	480	491	515	526	540	546	619	602	570	543	505	489	477	534
8	460	470	493	497	494	490	489	487	480	470	473	497	511	510	526	554	550	534	541	547	544	554	553	551	511
9	555	558	531	557	552	541	534	523	514	510	494	492	496	508	534	566	549	533	544	525	533	530	529	529	531
10	532	528	522	526	521	517	513	513	506	509	497	517	526	530	545	546	567	550	547	541	537	537	545	534	529
11	530	534	525	538	541	534	517	501	497	481	485	496	518	525	529	535	542	561	582	545	551	545	532	528	528
12	525	526	525	526	528	514	504	498	489	495	495	497	500	505	521	534	534	542	543	545	542	546	542	542	522
13 *q*	538	536	538	537	538	532	526	521	518	515	509	513	524	542	562	563	553	546	548	546	546	549	549	547	537
14	545	546	546	549	551	553	546	542	524	528	515	521	518	546	521	530	587	592	562	553	546	550	546	534	544
15	521	524	534	536	513	530	534	522	505	498	497	498	510	526	540	542	534	536	550	538	537	534	534	530	526
16	530	528	533	535	534	529	517	506	506	505	473	499	504	524	521	542	545	562	578	574	558	550	550	529	531
17	537	541	534	527	533	526	526	509	487	484	481	489	506	506	531	563	562	561	550	555	554	543	553	541	529
18 *d*	530	530	537	539	539	532	517	509	513	521	518	502	521	534	615	643	644	611	626	582	552	530	550	519	551
19	526	506	516	541	554	514	492	491	458	449	438	441	462	509	542	546	544	545	549	550	542	537	530	542	513
20 *q*	521	519	521	522	525	522	513	504	494	489	479	484	489	502	510	529	530	541	553	554	548	547	538	530	519
21	529	526	529	535	534	530	519	519	510	497	484	480	489	501	538	570	578	545	545	550	554	556	543	545	529
22	529	530	534	530	518	538	530	513	500	500	490	492	505	515	537	570	589	578	555	565	566	543	553	569	535
23	539	542	544	545	535	529	518	505	505	509	515	521	493	526	523	539	532	529	550	557	563	554	547	539	532
24	533	529	526	533	530	526	525	514	508	505	500	502	500	498	517	529	532	537	541	547	554	549	546	545	526
25	544	534	535	533	537	530	529	528	514	516	509	514	520	521	538	547	548	594	555	596	587	553	544	534	540
26 *d*	525	532	515	521	526	491	525	525	505	474	482	473	501	530	527	581	574	566	594	948	752	671	765	599	*571*
27 *d*	−111	55	−238	−408	4	9	−153	289	449	480	489	496	482	499	498	503	504	515	511	491	488	481	492	483	*305*
28	470	469	470	472	472	480	472	466	461	457	454	448	445	484	509	519	514	547	535	551	532	544	515	515	492
29 *d*	506	515	495	489	492	467	457	472	476	458	458	475	507	520	524	528	603	681	560	537	528	523	529	522	513
30	515	497	484	439	492	484	496	482	459	463	476	492	495	535	516	541	600	560	524	524	519	520	514	513	506
31	520	513	506	511	511	513	512	505	499	481	484	489	486	493	501	524	532	518	525	525	535	533	536	531	512
Mean	507	511	501	498	513	506	497	501	498	493	*488*	493	501	517	531	547	554	558	554	*563*	553	544	545	535	521

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

140 ESKDALEMUIR (D) — 12° + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	5·6	5·1	3·9	3·7	2·6	0·2	−1·5	−1·6	−1·5	0·3	3·4	6·6	10·7	11·9	11·7	10·7	9·2	8·9	8·0	8·1	7·3	6·5	6·4	5·8	5·5
2	5·5	5·0	4·5	6·5	8·0	2·0	0·4	0·8	2·8	2·0	3·4	5·5	8·0	9·7	10·1	10·5	9·3	7·2	7·1	7·3	7·3	7·7	6·2	5·7	5·9
3	5·5	5·7	6·3	5·1	8·1	7·4	2·9	6·9	9·8	7·4	11·1	10·0	9·7	7·4	8·1	8·4	9·1	7·8	8·9	8·5	8·1	7·2	7·1	5·5	*7·6*
4 *q*	4·5	3·8	3·0	2·1	0·9	0·1	−0·9	−0·4	1·1	2·9	4·4	8·3	12·0	13·7	11·2	10·3	10·4	10·0	9·3	8·4	7·4	6·5	6·0	5·5	5·9
5 *q*	5·9	5·5	5·7	3·1	1·5	0·1	0·1	0·3	0·7	1·8	3·7	7·4	9·7	11·5	11·6	11·8	9·7	8·6	9·0	9·2	9·0	7·9	6·9	6·3	6·1
6	5·3	4·7	4·5	3·8	3·0	2·1	1·8	2·1	1·9	3·7	4·6	8·4	10·1	11·7	11·9	11·7	10·0	9·1	8·7	7·0	8·2	7·3	7·1	6·3	6·5
7 *d*	4·8	5·2	5·7	7·0	8·4	2·9	4·2	−0·6	−1·8	0·0	5·5	8·0	12·5	13·7	14·7	14·5	10·5	12·7	11·9	9·1	7·3	5·2	2·8	0·8	6·8
8	−4·3	−4·3	−6·1	−6·7	−6·2	−5·5	−3·1	−1·7	1·9	4·1	6·6	11·0	12·8	14·5	13·6	12·9	12·5	7·9	8·1	8·8	7·6	6·7	6·5	6·5	4·3
9	6·4	6·4	7·3	0·3	−2·3	−3·7	−2·5	−1·1	0·2	2·7	5·7	9·2	10·1	10·6	11·6	12·0	9·4	8·3	9·2	8·3	7·5	4·7	4·5	5·8	5·4
10	5·5	5·4	6·9	5·5	2·2	0·9	0·8	1·9	4·5	5·3	7·3	10·9	11·8	12·4	12·5	11·0	10·7	5·4	6·4	9·3	9·8	8·9	8·2	6·5	7·1
11	6·4	6·7	8·8	5·4	1·3	1·0	0·3	0·5	2·6	1·0	2·1	4·8	8·0	9·0	8·4	8·8	8·0	7·7	5·3	5·4	7·3	3·9	5·7	7·3	5·2
12	5·6	5·2	4·0	2·8	2·8	1·5	1·8	3·0	3·8	4·6	4·8	7·0	9·3	10·3	9·9	8·2	5·9	6·0	6·5	6·9	6·9	7·3	7·4	7·3	5·8
13 *q*	6·5	6·4	6·3	5·7	3·8	1·3	1·2	2·6	4·4	5·7	6·1	9·8	12·7	14·3	12·9	11·0	8·7	7·3	5·4	5·1	5·9	6·4	6·6	6·0	6·8
14	5·9	5·6	5·8	3·9	3·0	1·1	1·1	2·8	5·8	3·8	4·6	8·2	11·9	14·3	14·3	13·0	15·9	11·9	9·4	10·0	9·2	8·0	5·2	3·4	7·4
15	1·9	3·6	3·6	0·1	0·6	0·4	−2·8	−0·7	0·1	1·8	5·1	8·9	11·6	13·4	12·9	10·9	8·1	7·1	6·5	6·5	6·3	6·2	5·5	5·1	5·1
16	4·6	3·8	3·8	3·4	2·8	0·8	−0·3	0·9	1·8	0·0	3·3	7·9	9·7	10·9	10·4	11·7	4·1	8·2	7·5	7·2	7·2	5·7	2·9	2·8	5·0
17	3·7	5·7	1·9	1·1	1·9	2·7	3·8	−0·8	0·0	2·2	6·4	9·0	11·9	14·3	13·3	12·0	10·1	9·3	7·2	7·0	7·3	5·5	2·6	1·0	5·8
18 *d*	1·5	2·0	3·5	3·1	1·2	−0·2	−2·5	−2·0	−1·2	−2·4	1·0	5·4	10·7	13·6	20·7	21·7	15·3	14·6	10·9	6·2	7·3	3·0	1·0	4·0	5·8
19	3·6	6·1	7·3	1·1	6·4	7·3	4·7	6·9	4·0	2·2	3·7	7·5	12·5	12·3	8·6	9·2	7·6	6·9	6·5	7·2	3·8	6·3	6·4	2·9	6·3
20 *q*	5·6	2·8	2·9	1·2	−0·1	−1·7	−3·3	−2·7	−2·1	0·1	3·0	7·0	10·9	13·6	13·6	12·5	9·1	7·5	6·5	5·9	6·2	6·3	6·3	5·7	4·9
21	3·5	3·0	3·8	2·9	−1·7	−1·6	−1·7	−1·9	−1·7	2·8	4·4	7·7	11·1	12·9	13·6	12·6	9·0	7·2	6·5	7·3	7·2	1·8	3·0	0·1	4·7
22	1·0	2·9	2·9	1·3	2·9	1·0	−3·9	−3·8	−1·4	1·9	5·1	6·8	10·3	12·7	12·9	13·0	11·6	7·7	6·6	6·4	7·7	6·0	6·5	1·0	5·0
23	−0·7	−0·9	0·3	0·5	−1·7	−3·1	−3·2	−4·4	−0·8	2·4	5·2	8·7	12·1	13·0	13·4	13·7	12·5	7·0	6·0	5·9	5·9	5·4	5·7	5·7	4·5
24	5·3	4·6	3·8	4·0	2·0	1·1	1·9	1·1	1·5	1·8	3·8	6·6	10·1	11·0	10·1	8·7	7·4	7·1	6·5	5·7	6·2	6·9	7·1	6·6	5·5
25	5·9	5·9	5·6	5·2	1·0	−1·7	−0·9	2·4	3·7	8·1	10·0	12·8	14·5	13·5	12·5	11·2	9·9	3·9	3·7	6·5	6·2	6·2	5·4	0·8	6·3
26 *d*	2·6	−2·7	−1·6	0·2	−1·6	3·5	0·2	0·1	−1·5	−2·0	3·3	7·2	11·0	12·6	11·8	12·3	10·1	8·6	9·7	13·6	26·9	20·2	6·6	19·2	7·1
27 *d*	−4·0	−30·6	−24·3	−29·2	−2·6	−16·6	24·7	−10·3	−7·1	−2·4	8·5	12·4	12·6	10·2	8·9	6·7	5·3	3·7	2·0	1·0	1·3	1·2	1·9	3·5	*−1·0*
28	3·6	3·0	1·3	0·8	−0·3	−1·1	−1·9	−3·1	−2·5	−0·9	3·1	8·3	9·9	9·9	10·2	9·2	6·5	5·6	3·8	3·0	2·8	2·9	6·3	3·8	3·5
29 *d*	3·8	3·8	1·9	3·7	5·5	10·7	8·9	5·6	3·8	3·0	7·5	12·7	15·4	13·3	13·4	10·3	10·5	5·8	4·3	5·7	7·2	6·5	2·3	8·0	7·2
30	4·5	1·1	6·4	9·3	2·0	−0·1	−4·3	−4·4	−3·9	−0·3	2·6	6·9	9·3	11·7	9·8	10·0	7·4	5·4	4·6	5·1	5·8	5·4	5·3	4·9	4·4
31	8·2	7·3	3·7	2·5	1·8	1·1	0·3	0·0	1·9	2·2	3·7	9·0	13·1	14·4	13·6	10·9	7·2	4·6	2·6	2·9	3·5	5·3	6·2	6·4	5·5
Mean	4·0	2·8	3·0	1·9	1·9	0·5	0·9	*−0·1*	1·0	2·1	4·9	8·4	11·2	*12·2*	12·0	11·3	9·4	7·7	6·9	6·9	7·3	6·3	5·4	5·1	5·5

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

141 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	1143	1143	1144	1145	1147	1146	1144	1141	1138	1140	1137	1134	1129	1135	1136	1147	1153	1155	1154	1150	1148	1144	1142	1141	1143
2	1141	1140	1138	1137	1129	1124	1129	1131	1130	1128	1129	1129	1130	1130	1129	1136	1143	1148	1149	1147	1142	1139	1138	1136	1135
3	1136	1136	1136	1136	1136	1129	1130	1129	1113	1113	1114	1108	1124	1146	1153	1156	1154	1155	1153	1147	1142	1141	1137	1137	1136
4 *q*	1137	1137	1139	1139	1141	1140	1136	1134	1129	1129	1124	1122	1129	1129	1130	1136	1141	1141	1141	1142	1140	1137	1136	1136	1135
5 *q*	1136	1136	1135	1135	1137	1137	1136	1136	1134	1132	1127	1117	1115	1122	1131	1139	1143	1144	1141	1140	1140	1140	1137	1136	1134
6	1136	1136	1136	1136	1136	1136	1131	1130	1125	1119	1114	1113	1118	1123	1130	1131	1141	1146	1144	1143	1142	1143	1141	1137	1133
7 *d*	1136	1136	1134	1122	1095	1100	1094	1105	1105	1106	1103	1105	1107	1117	1131	1143	1161	1171	1183	1195	1189	1181	1160	1144	1134
8	1117	1119	1120	1117	1120	1124	1124	1129	1135	1138	1136	1132	1129	1142	1141	1136	1134	1143	1143	1142	1146	1147	1143	1141	1133
9	1137	1137	1112	1113	1134	1141	1136	1134	1131	1125	1129	1129	1135	1146	1159	1174	1191	1179	1161	1154	1147	1147	1146	1139	1143
10	1137	1137	1136	1132	1138	1141	1141	1137	1132	1129	1125	1117	1117	1124	1131	1141	1147	1167	1171	1161	1154	1149	1144	1135	1139
11	1137	1137	1131	1108	1112	1124	1129	1129	1129	1125	1123	1121	1119	1129	1142	1147	1149	1149	1158	1166	1161	1155	1148	1141	1136
12	1140	1137	1136	1135	1131	1135	1124	1124	1124	1123	1123	1124	1130	1134	1140	1144	1148	1151	1152	1148	1145	1141	1138	1137	1136
13 *q*	1137	1137	1138	1140	1141	1141	1136	1130	1129	1130	1131	1129	1130	1134	1135	1136	1140	1143	1142	1143	1141	1137	1136	1136	1136
14	1136	1135	1135	1135	1136	1135	1131	1130	1130	1129	1119	1114	1119	1136	1153	1166	1178	1197	1180	1159	1150	1144	1141	1137	1143
15	1135	1136	1136	1135	1123	1095	1112	1122	1118	1119	1119	1117	1119	1124	1131	1139	1141	1140	1137	1139	1137	1136	1136	1136	1128
16	1136	1136	1136	1137	1137	1136	1136	1135	1120	1112	1108	1107	1117	1128	1129	1141	1159	1150	1150	1147	1143	1138	1128	1129	1133
17	1124	1101	1106	1120	1129	1130	1117	1113	1108	1109	1106	1105	1110	1116	1123	1132	1142	1142	1142	1139	1137	1137	1134	1126	1123
18 *d*	1130	1131	1130	1129	1131	1134	1131	1124	1119	1107	1105	1107	1106	1110	1116	1146	1189	1203	1215	1210	1189	1155	1123	1116	1140
19	1111	1105	1075	1096	1101	1099	1106	1113	1120	1129	1136	1143	1142	1159	1194	1191	1190	1192	1182	1171	1162	1148	1141	1128	1139
20 *q*	1125	1131	1135	1142	1144	1147	1143	1138	1135	1130	1122	1119	1119	1122	1125	1129	1136	1142	1142	1142	1143	1141	1137	1132	1134
21	1130	1131	1130	1124	1126	1132	1133	1130	1124	1123	1123	1119	1116	1119	1130	1142	1155	1154	1152	1145	1138	1137	1130	1119	1132
22	1120	1125	1129	1134	1131	1113	1120	1124	1123	1119	1117	1114	1114	1124	1136	1147	1155	1168	1167	1156	1149	1144	1136	1113	1132
23	1105	1116	1125	1129	1134	1135	1130	1123	1118	1112	1108	1104	1107	1110	1115	1125	1134	1138	1143	1143	1143	1138	1136	1135	1125
24	1135	1135	1136	1137	1140	1143	1142	1141	1136	1127	1123	1120	1123	1129	1137	1143	1144	1142	1140	1141	1140	1135	1135	1135	1136
25	1134	1135	1129	1125	1123	1126	1127	1123	1117	1117	1114	1113	1108	1108	1126	1135	1130	1153	1155	1149	1153	1147	1141	1132	1130
26 *d*	1117	1105	1107	1098	1095	1096	1090	1101	1101	1111	1117	1118	1111	1120	1131	1142	1154	1161	1148	1141	1206	1190	1244	1082	1129
27 *d*	765	795	948	913	741	790	694	956	1159	1183	1194	1201	1189	1180	1183	1185	1185	1181	1178	1173	1171	1167	1166	1165	*1061*
28	1162	1160	1161	1160	1160	1161	1166	1166	1164	1159	1153	1153	1165	1166	1171	1172	1168	1177	1189	1186	1180	1159	1138	1145	*1164*
29 *d*	1130	1141	1144	1143	1131	1111	1112	1124	1136	1141	1143	1142	1136	1149	1155	1153	1161	1186	1190	1179	1161	1152	1142	1129	1145
30	1105	1107	1108	1093	1119	1139	1147	1152	1152	1150	1146	1138	1130	1148	1156	1161	1179	1183	1174	1156	1148	1147	1146	1146	1143
31	1141	1128	1132	1141	1146	1143	1146	1147	1142	1137	1137	1128	1124	1135	1146	1154	1159	1161	1160	1153	1148	1144	1142	1138	1143
Mean	1120	1120	1124	1122	1117	1119	*1115*	1124	1129	1127	1126	1124	1125	1132	1140	1147	1155	*1160*	1159	1155	1153	1147	1143	1133	1134

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

142 ESKDALEMUIR — JULY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force						
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +		Minimum 12° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *q*	20 00	561	482	10 32	79	14 05	12·5	-2·0	08 19	14·5	17 49	1156	1126	12 25	30	1,1,0,1,3,2,2,0	10	0	84·0
2	19 31	563	480	12 02	83	15 35	10·6	-0·9	07 14	11·5	17 53	1152	1122	05 03	30	2,2,3,2,3,2,2,1	17	0	83·9
3	16 30	571	433	10 15	138	10 29	13·8	0·0	06 25	13·8	15 27	1158	1107	11 32	51	2,3,4,4,3,3,2,1	22	1	83·9
4 *q*	18 50	558	473	12 03	85	13 24	14·6	-2·6	06 54	17·2	17 00	1143	1120	11 41	23	1,1,0,2,3,2,2,0	11	0	83·8
5 *q*	20 09	551	527	10 46	*24*	15 04	12·4	-0·8	06 30	13·2	17 13	1147	1112	12 01	35	1,0,1,1,3,2,2,1	11	0	83·8
6	19 48	570	506	10 44	64	13 49	12·5	0·9	05 30	11·6	17 02	1148	1111	10 55	37	2,1,1,1,2,2,2,2	13	0	83·8
7 *d*	17 48	638	453	24 00	185	14 58	15·6	-7·2	08 03	22·8	19 22	1200	1090	04 53	110	2,4,4,4,3,5,4,3	29	1	83·8
8	15 22	591	433	00 11	158	14 12	16·1	-8·7	00 20	24·8	21 30	1149	1111	01 12	38	4,3,2,3,4,4,2,1	23	1	83·8
9	01 45	602	473	10 25	129	02 14	15·9	-6·2	05 45	22·1	16 30	1196	1095	02 54	101	4,3,2,3,3,4,3,1	23	1	83·8
10	16 45	624	489	10 30	135	14 16	12·7	0·1	06 06	12·6	18 09	1173	1113	11 21	60	2,2,2,3,2,3,2,3	19	1	83·8
11	18 39	598	477	09 22	121	02 46	12·9	-0·8	07 09	13·7	19 30	1167	1105	03 31	62	3,3,2,3,3,3,4,2	23	1	83·8
12	18 50	551	484	08 22	67	13 44	10·8	-0·7	06 00	11·5	17 51	1154	1120	10 30	34	1,2,2,2,2,2,1,0	12	0	83·8
13 *q*	15 10	574	499	11 10	75	13 14	14·4	0·5	06 06	13·9	19 11	1144	1128	09 10	*16*	0,0,2,2,2,3,1,2	12	0	83·7
14	17 14	643	500	15 30	143	16 22	17·3	-0·2	05 31	17·5	17 50	1206	1112	11 42	94	1,1,2,2,4,5,3,3	21	1	83·7
15	15 44	560	488	11 19	72	13 38	13·8	-5·6	06 40	19·4	19 02	1142	1089	05 28	53	3,3,2,1,2,3,2,1	17	1	83·7
16	18 18	591	434	10 38	157	15 13	12·9	-2·4	06 24	15·3	16 30	1161	1105	11 15	56	1,1,2,4,3,3,3,3	20	1	83·7
17	15 21	574	470	09 10	104	13 27	15·3	-3·2	07 22	18·5	17 21	1143	1096	01 39	47	2,3,3,2,3,3,2,3	21	1	83·7
18 *d*	16 38	728	479	11 22	249	15 48	25·0	-7·5	22 07	32·5	18 54	1227	1101	10 25	126	2,2,2,3,5,6,5,4	29	2	83·8
19	13 54	578	429	10 59	149	01 59	20·7	-0·9	23 48	21·6	16 40	1197	1066	02 20	131	4,4,3,2,5,2,2,3	25	1	83·9
20 *q*	19 28	560	475	10 52	85	14 09	14·4	-3·7	06 37	18·1	05 30	1149	1117	12 10	32	3,1,0,1,1,2,1,2	11	0	83·8
21	15 49	607	469	11 39	138	14 13	14·6	-5·2	23 34	19·8	17 00	1161	1114	12 43	47	2,2,2,2,3,4,3,3	21	1	83·8
22	16 16	597	485	10 19	112	15 18	13·9	-5·4	07 30	19·3	17 59	1172	1106	23 51	66	2,3,2,2,3,3,3,4	22	1	84·0
23	20 59	578	457	12 00	121	16 13	15·0	-6·6	07 17	21·6	19 10	1147	1099	11 42	48	3,2,2,4,4,4,3,3	25	1	84·0
24	20 05	558	489	13 03	69	13 12	11·5	0·3	06 09	*11·2*	16 20	1146	1119	11 40	27	0,1,1,2,2,2,2,1	11	0	84·1
25	17 05	646	500	10 40	146	12 34	15·3	-3·2	05 33	18·5	17 53	1162	1105	12 58	57	1,2,2,3,2,5,4,3	22	1	84·1
26 *d*	19 37	*1075*	449	09 56	626	20 45	46·0	-16·9	22 34	62·9	22 32	*1378*	1022	24 00	356	3,3,3,3,3,4,8,8	35	2	84·2
27 *d*	12 01	602	*-1351*	03 06	*1953*	06 29	*61·1*	*-109·0*	03 07	*170·1*	11 08	1213	*564*	01 39	*649*	9,9,9,6,5,4,4,2	48	2	84·2
28	17 24	583	421	12 27	162	14 05	13·6	-3·7	04 51	17·3	18 55	1196	1135	22 25	61	1,2,2,2,4,4,4,4	23	1	84·2
29 *d*	16 42	765	404	09 52	361	05 51	22·0	-1·2	09 58	23·2	17 11	1196	1106	06 01	90	4,5,5,4,4,6,4,4	36	2	84·2
30	16 59	657	421	03 24	236	13 12	15·2	-9·0	07 26	24·2	16 57	1190	1076	03 48	114	4,4,3,4,4,5,2,1	27	1	84·1
31	15 54	563	477	10 04	86	13 45	15·5	-0·8	06 59	16·3	18 08	1162	1123	12 20	39	3,1,1,2,2,3,2,2	16	0	84·1
Mean		613	410	- -	203	- -	17·4	-6·8	- -	24·2	- -	1175	1088	- -	88	-	-	0·81	83·9

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

143 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	520	520	503	505	516	516	516	503	498	488	476	468	473	490	518	526	533	536	536	532	534	531	526	526	512
2	523	522	523	524	523	524	518	516	512	496	490	482	483	501	512	529	539	543	546	543	540	536	533	532	520
3	529	527	529	528	527	513	508	500	481	480	485	490	500	512	527	537	547	543	536	531	527	529	532	532	519
4	532	535	533	534	533	532	525	516	509	504	502	507	507	504	508	529	539	542	550	543	543	543	537	535	527
5	535	533	533	530	532	532	528	513	508	503	500	513	509	507	522	536	535	546	551	558	547	545	548	547	530
6	544	539	536	534	534	533	532	528	519	504	496	503	522	526	524	532	524	527	545	548	552	550	547	545	531
7 *d*	539	547	543	552	542	539	535	524	509	500	489	494	528	524	572	588	601	597	555	536	527	533	530	528	*539*
8	525	521	520	520	523	516	509	502	496	483	482	487	494	509	519	528	536	537	545	548	547	536	528	534	519
9	534	536	533	533	530	527	520	516	512	510	516	516	524	527	524	525	539	543	551	545	540	541	540	536	530
10	533	533	532	530	531	528	520	511	504	492	488	494	509	524	535	530	543	551	551	552	548	544	539	532	527
11 *d*	523	528	518	535	530	552	548	542	514	513	493	481	506	545	531	524	572	572	560	557	546	560	527	522	533
12	511	519	505	520	524	524	507	504	483	480	478	480	492	507	520	529	545	534	539	544	545	547	545	516	517
13	516	517	522	527	525	520	512	509	505	494	482	483	489	496	507	526	530	535	535	548	543	543	539	535	518
14 *d*	537	535	536	546	543	533	527	469	459	441	440	442	440	503	488	483	492	509	539	564	546	536	501	510	*505*
15 *d*	529	541	492	480	503	515	513	496	484	471	457	469	492	504	532	516	572	556	539	539	529	528	514	527	512
16	520	524	524	511	521	513	501	492	477	466	472	476	490	500	500	527	537	559	573	577	554	532	533	522	517
17	518	518	521	520	516	507	479	465	453	472	476	450	495	495	494	510	531	538	538	546	537	558	529	519	508
18	518	518	518	520	523	521	517	504	496	480	468	472	496	516	526	531	536	542	538	531	538	547	523	527	517
19	526	511	517	520	520	514	510	503	496	489	489	488	499	500	507	514	524	529	537	536	542	535	534	528	515
20	528	527	525	527	521	524	528	525	507	484	481	487	492	505	517	526	531	534	544	550	540	536	535	531	521
21 *q*	534	531	532	531	528	526	523	515	503	485	480	493	502	511	522	531	532	537	535	536	539	538	536	540	523
22 *q*	538	535	533	530	532	528	519	512	502	493	494	500	510	516	524	530	532	529	531	538	538	538	538	540	524
23 *q*	538	538	535	534	531	526	518	507	498	494	502	508	511	514	521	526	527	530	536	544	548	549	552	554	527
24	553	560	565	549	544	542	525	527	513	511	513	515	519	524	536	531	544	544	544	548	549	542	540	536	536
25	543	535	542	531	523	516	503	491	480	479	495	499	515	519	524	520	534	519	527	535	534	534	533	532	519
26 *q*	531	531	531	531	530	525	515	500	485	477	479	491	507	518	528	538	538	538	536	548	542	542	539	539	522
27	539	538	537	538	533	533	530	506	488	477	476	495	495	516	528	533	538	538	537	545	550	550	536	530	524
28	533	531	526	532	534	531	523	511	496	487	487	496	509	524	515	522	540	547	542	545	546	540	538	536	525
29 *q*	536	536	534	536	534	532	527	518	506	487	483	490	500	511	516	529	543	546	547	545	542	538	539	536	525
30	533	534	534	534	534	532	527	519	510	501	496	503	512	524	534	542	548	557	559	567	556	543	554	550	533
31 *d*	571	548	527	540	503	456	508	497	491	470	443	457	489	512	520	554	578	548	516	516	515	515	512	513	512
Mean	532	531	528	529	527	523	518	508	497	487	*484*	488	500	512	521	529	541	542	543	*545*	541	540	534	532	522

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

144 ESKDALEMUIR (D) — 12° + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	6·5	9·1	7·3	7·2	3·3	3·0	2·1	−0·7	−2·1	−0·6	1·9	6·5	11·0	13·6	13·0	11·4	7·4	5·4	2·8	2·5	3·7	4·8	4·3	5·2	5·4
2	5·6	5·5	6·4	6·2	4·8	2·0	−0·6	−1·3	−0·9	0·1	2·8	7·4	9·9	10·8	9·5	7·3	4·9	3·1	2·5	4·4	4·7	5·8	5·2	6·4	4·7
3	6·5	5·9	5·5	5·1	4·7	2·6	1·5	−1·7	−1·6	0·2	3·7	8·1	11·1	12·5	11·5	8·6	6·6	5·7	5·0	5·3	4·7	4·2	4·2	3·9	5·2
4	4·2	4·2	4·0	3·6	2·6	0·2	−1·6	−2·2	−0·9	1·8	4·6	9·0	11·1	12·4	11·6	9·4	8·1	6·7	6·6	6·5	6·6	6·5	7·1	6·6	5·4
5	5·7	5·6	4·5	3·9	2·0	0·3	−0·6	−0·6	0·7	1·7	3·8	8·6	12·8	13·1	10·9	9·2	8·0	6·7	6·9	6·1	5·7	4·9	5·1	4·9	5·4
6	5·3	5·3	5·1	3·0	2·0	0·2	0·1	−0·2	0·2	1·8	4·5	7·9	11·6	12·3	12·9	11·0	9·3	6·8	6·7	6·7	6·9	8·8	7·4	6·8	5·9
7 *d*	5·5	6·5	6·3	5·6	3·7	0·1	−1·2	−1·0	0·7	3·0	6·4	10·2	16·1	17·9	18·1	16·9	15·5	11·1	7·4	0·1	5·7	8·4	6·7	5·6	*7·3*
8	4·6	3·9	3·5	3·2	2·0	1·1	1·0	1·1	0·7	0·8	2·9	5·5	7·7	9·8	9·5	8·4	7·8	7·0	6·3	7·2	6·0	4·6	4·2	4·7	4·7
9	3·9	3·7	2·8	2·5	1·3	0·2	0·3	0·1	1·3	3·7	6·3	10·1	13·4	13·5	11·8	9·8	7·9	5·6	6·1	4·9	5·5	6·4	6·1	5·3	5·5
10	4·4	3·9	3·5	2·8	1·5	−0·6	−1·6	−2·6	−2·2	1·8	5·7	10·6	14·5	15·1	13·4	10·1	7·5	5·7	2·9	3·7	5·9	6·5	3·8	2·8	5·0
11 *d*	3·5	5·1	1·5	2·6	4·5	7·9	8·7	3·8	−1·1	2·3	6·2	8·8	10·3	13·1	12·4	9·9	10·5	1·9	1·0	6·4	6·6	6·4	5·1	−0·8	5·7
12	3·5	−5·5	−4·4	2·5	1·6	0·5	0·3	−1·0	−2·1	1·0	5·2	9·0	12·0	13·3	11·9	9·2	8·2	5·7	4·7	5·6	5·7	4·6	1·9	−2·7	3·8
13	3·5	2·6	3·9	2·0	−1·0	−0·7	−0·7	−1·7	−1·6	−0·3	3·4	7·3	11·6	13·1	11·1	9·0	5·7	4·4	2·9	4·3	4·5	4·4	3·9	3·8	4·0
14 *d*	3·7	3·6	3·3	2·9	0·1	−1·0	−2·9	−4·2	5·5	2·6	4·7	10·9	12·6	14·8	14·6	13·1	10·1	7·2	7·3	5·7	−5·7	5·7	−0·3	3·9	4·9
15 *d*	3·6	−1·3	−6·3	2·0	1·3	−4·7	−0·7	−1·1	−2·7	−0·5	4·4	8·1	11·0	11·9	12·8	10·6	11·7	5·4	2·5	5·7	3·7	−0·8	5·5	3·8	3·6
16	3·6	4·1	4·5	3·4	1·0	−2·6	−3·7	−3·9	−1·9	0·7	5·3	8·4	11·8	12·7	10·5	9·9	9·6	8·8	9·1	1·8	−4·1	−0·3	−5·4	−2·1	3·4
17	−0·6	0·3	1·6	1·1	3·3	4·5	8·2	10·2	3·3	2·3	4·0	7·9	13·4	15·2	15·4	10·4	10·7	8·0	4·5	2·8	4·4	1·5	5·5	3·9	5·9
18	3·8	3·5	3·7	3·2	2·3	0·8	0·2	0·9	0·0	2·7	5·5	9·1	11·5	13·1	11·9	9·1	7·2	6·0	4·7	5·3	4·5	2·5	3·7	3·0	4·9
19	−4·2	−2·8	0·2	1·6	1·0	0·8	0·0	−0·5	−0·3	0·0	3·3	7·3	11·8	12·9	12·4	10·7	9·2	7·0	4·6	4·3	4·4	3·4	3·6	3·8	3·9
20	4·6	2·9	3·6	2·7	0·5	2·0	0·2	−0·1	−0·9	0·0	2·6	7·2	11·1	11·6	10·8	9·5	7·5	5·2	5·4	5·2	2·6	4·2	4·5	3·8	4·4
21 *q*	3·8	4·2	4·5	4·1	2·9	0·8	−1·1	−1·8	−1·6	1·5	5·0	9·8	13·5	14·5	13·2	11·0	8·0	6·2	4·9	5·3	4·7	4·5	4·1	5·1	5·3
22 *q*	4·2	4·0	3·9	3·9	1·8	0·5	−0·9	−1·6	−1·2	0·2	3·7	7·5	10·0	10·9	9·9	8·0	5·6	4·5	4·7	5·2	4·9	4·4	4·5	4·4	4·3
23 *q*	4·3	4·0	3·8	2·9	1·7	0·4	−1·1	−1·4	−1·1	0·3	5·9	11·1	12·9	12·3	9·9	6·9	4·2	3·5	4·5	5·8	5·4	5·5	5·4	5·5	4·7
24	5·7	5·8	3·8	0·3	0·4	−0·9	−1·9	−1·5	0·1	3·6	6·7	9·2	11·6	12·7	12·0	9·1	6·7	4·6	3·8	4·4	4·6	4·2	6·1	4·6	4·8
25	4·7	0·1	−0·7	−1·6	−1·7	−2·7	−2·8	−4·3	−2·8	1·9	7·1	10·0	12·1	11·7	8·9	4·9	3·4	2·0	3·6	4·6	4·7	4·9	4·5	4·4	*3·2*
26 *q*	3·8	3·0	3·0	2·7	1·7	0·6	−0·3	−1·3	−0·9	2·6	6·5	9·7	11·8	12·4	11·4	7·5	4·6	3·8	4·8	6·4	5·7	5·7	5·4	4·6	4·8
27	3·9	3·3	2·8	2·4	0·8	−2·1	−2·8	−2·5	−2·5	−0·1	4·5	10·1	11·0	11·3	10·1	8·0	6·2	4·8	4·8	5·4	5·4	6·3	3·0	3·0	4·0
28	2·8	−0·1	0·1	0·0	0·0	0·4	0·0	0·1	1·8	4·8	8·4	12·1	14·9	17·4	15·3	11·6	8·9	6·4	5·3	4·5	5·2	4·7	4·1	3·4	5·5
29 *q*	3·1	2·8	2·4	2·3	1·8	1·3	0·1	−0·3	−0·3	1·4	5·4	9·9	13·1	13·6	12·3	10·3	8·2	6·0	5·6	5·5	6·4	5·6	4·6	3·8	5·2
30	2·8	2·5	2·3	2·1	2·0	1·7	1·0	0·3	0·5	1·8	3·9	3·0	4·6	10·7	11·0	10·5	8·9	7·3	7·3	5·5	5·1	4·7	2·6	1·9	4·3
31 *d*	5·6	−5·4	−11·0	−3·4	13·5	15·6	2·8	−4·1	−2·5	1·0	4·2	4·4	8·3	11·8	15·0	15·5	15·9	12·5	8·2	8·1	6·4	4·6	3·6	2·4	5·5
Mean	3·9	2·9	2·4	2·7	2·2	1·0	0·1	*−0·8*	−0·5	1·4	4·8	8·5	11·6	*13·0*	12·1	9·9	8·2	6·0	5·1	5·0	4·5	4·8	4·2	3·7	4·9

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

145 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1138	1135	1136	1138	1146	1148	1150	1154	1154	1155	1150	1142	1141	1142	1152	1160	1167	1166	1161	1156	1151	1147	1146	1143	1149
2	1143	1144	1144	1147	1148	1152	1149	1146	1142	1137	1134	1129	1130	1131	1136	1144	1152	1157	1161	1155	1153	1149	1147	1144	1145
3	1143	1143	1141	1137	1138	1142	1144	1148	1149	1142	1129	1119	1125	1133	1136	1142	1144	1147	1147	1145	1144	1143	1142	1141	1140
4	1141	1140	1141	1142	1143	1143	1142	1146	1136	1126	1117	1112	1111	1122	1129	1131	1135	1141	1142	1142	1141	1140	1138	1137	1135
5	1137	1137	1137	1140	1142	1142	1144	1147	1143	1137	1135	1126	1123	1124	1124	1133	1140	1142	1141	1138	1141	1142	1140	1135	1137
6	1134	1135	1136	1137	1141	1142	1141	1138	1137	1131	1122	1108	1106	1123	1131	1143	1148	1148	1144	1144	1145	1142	1139	1137	1135
7 *d*	1138	1136	1134	1115	1117	1123	1129	1130	1133	1130	1130	1120	1117	1138	1172	1213	1225	1240	1227	1214	1177	1154	1148	1147	*1154*
8	1147	1147	1147	1145	1147	1148	1148	1147	1142	1134	1132	1129	1126	1135	1141	1144	1147	1147	1144	1143	1147	1148	1147	1139	1143
9	1140	1139	1138	1138	1140	1141	1138	1137	1136	1125	1118	1116	1113	1125	1135	1140	1146	1154	1150	1151	1145	1140	1138	1137	1137
10	1137	1137	1137	1137	1140	1141	1140	1140	1137	1125	1119	1111	1107	1117	1129	1136	1141	1150	1152	1149	1147	1143	1141	1137	1135
11 *d*	1132	1114	1113	1124	1125	1105	1100	1112	1127	1130	1129	1129	1130	1140	1148	1153	1156	1185	1188	1166	1161	1136	1116	1117	1135
12	1092	1093	1094	1105	1124	1134	1131	1134	1133	1132	1125	1119	1120	1124	1129	1140	1142	1143	1140	1138	1138	1143	1122	1124	1126
13	1128	1129	1131	1135	1133	1135	1135	1135	1135	1129	1125	1120	1118	1122	1130	1136	1141	1137	1140	1136	1135	1135	1135	1135	1132
14 *d*	1135	1135	1134	1129	1129	1135	1135	1137	1126	1125	1123	1117	1123	1152	1147	1149	1162	1163	1155	1166	1176	1117	1135	1137	1139
15 *d*	1124	1100	1093	1096	1096	1125	1134	1140	1145	1141	1138	1130	1128	1128	1137	1148	1154	1180	1185	1164	1158	1153	1144	1129	1136
16	1130	1122	1116	1124	1133	1135	1136	1136	1134	1127	1123	1120	1120	1126	1134	1138	1141	1144	1146	1159	1155	1144	1093	1104	1131
17	1121	1134	1137	1135	1133	1127	1111	1101	1103	1113	1110	1110	1110	1125	1151	1168	1162	1159	1158	1158	1149	1141	1127	1132	1132
18	1136	1136	1136	1135	1137	1140	1142	1143	1138	1133	1128	1123	1122	1127	1135	1139	1144	1148	1149	1146	1143	1139	1135	1134	1137
19	1125	1124	1129	1134	1137	1141	1141	1141	1135	1131	1130	1129	1125	1128	1132	1138	1141	1142	1143	1145	1142	1142	1138	1136	1135
20	1134	1132	1131	1131	1132	1134	1136	1137	1138	1137	1134	1123	1124	1125	1128	1135	1137	1141	1141	1142	1144	1142	1138	1137	1135
21 *q*	1136	1136	1136	1136	1137	1141	1141	1141	1141	1134	1122	1113	1116	1124	1134	1136	1141	1139	1136	1135	1135	1137	1137	1135	1134
22 *q*	1134	1133	1134	1135	1136	1137	1137	1137	1136	1129	1123	1116	1116	1123	1134	1138	1140	1136	1134	1132	1134	1135	1135	1135	1132
23 *q*	1136	1136	1136	1136	1137	1140	1142	1141	1136	1123	1111	1111	1117	1128	1135	1135	1131	1129	1126	1126	1129	1130	1130	1130	1130
24	1130	1128	1119	1123	1125	1128	1129	1125	1125	1125	1118	1111	1107	1116	1126	1136	1138	1140	1138	1136	1136	1135	1134	1135	1128
25	1129	1129	1124	1125	1129	1131	1129	1123	1118	1112	1107	1106	1111	1122	1131	1135	1137	1136	1130	1128	1129	1131	1132	1134	*1126*
26 *q*	1135	1135	1135	1135	1135	1136	1136	1136	1136	1125	1117	1111	1111	1119	1129	1134	1136	1132	1125	1125	1130	1132	1134	1135	1130
27	1135	1135	1135	1135	1135	1135	1131	1131	1129	1125	1119	1117	1120	1120	1126	1135	1136	1136	1134	1134	1133	1135	1137	1136	1131
28	1132	1131	1131	1130	1130	1129	1129	1127	1123	1117	1110	1108	1113	1117	1124	1128	1133	1140	1142	1142	1137	1136	1135	1135	1128
29 *q*	1135	1135	1135	1135	1135	1136	1135	1135	1134	1129	1119	1112	1110	1114	1122	1129	1135	1139	1138	1137	1136	1135	1135	1132	1131
30	1135	1135	1135	1136	1136	1136	1135	1132	1129	1126	1121	1114	1116	1117	1123	1128	1132	1137	1137	1135	1132	1137	1136	1128	1130
31 *d*	1065	1069	1071	1063	1043	949	1009	1087	1118	1130	1141	1140	1144	1159	1167	1184	1202	1214	1197	1167	1154	1148	1145	1144	1121
Mean	1131	1129	1129	1129	1131	1130	1132	1134	1134	1129	1125	*1119*	1119	1127	1136	1143	1148	*1152*	1150	1147	1144	1140	1135	1134	1135

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

146 ESKDALEMUIR — AUGUST

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +		Minimum 12° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1	18 19	548	465	11 47	83	13 58	14·4	−2·5	08 04	16·9	16 46	1168	1132	01 44	36	2,2,2,2,3,3,2,1	17	1	84·1
2	18 18	556	476	12 10	80	13 47	11·7	−2·2	08 02	13·9	18 33	1165	1127	12 00	38	1,1,2,2,2,1,2,1	12	0	84·0
3	16 39	556	469	09 08	87	13 08	12·9	−2·7	07 48	15·6	08 15	1150	1117	11 39	33	0,2,2,2,2,2,2,1	13	0	84·0
4	18 31	555	500	10 40	55	13 13	12·8	−2·7	07 11	15·5	05 10	1144	1107	12 02	37	1,1,0,1,2,1,2,1	9	0	84·0
5	19 44	564	495	11 03	69	13 03	14·6	−1·1	06 50	15·7	07 42	1149	1120	12 51	29	0,0,1,2,2,2,2,2	11	1	84·0
6	20 50	560	491	10 04	69	13 21	14·2	−0·9	07 05	15·1	17 30	1150	1105	12 16	45	1,1,1,2,4,3,2,2	16	1	84·0
7 *d*	17 15	636	476	10 40	160	14 20	22·5	−7·7	19 44	30·2	17 37	*1244*	1107	03 35	137	2,4,2,2,4,4,4,2	24	1	84·0
8	19 51	572	480	10 08	92	13 36	10·5	−0·3	08 22	*10·8*	20 57	1150	1125	12 20	25	2,1,1,1,1,3,3,2	14	1	84·0
9	19 00	567	504	10 15	63	12 38	13·6	−0·8	07 24	14·4	17 30	1155	1111	11 55	44	2,1,1,2,2,2,3,1	14	1	84·0
10	18 11	578	476	10 54	102	13 37	15·9	−3·2	07 43	19·1	18 51	1154	1106	12 10	48	0,0,1,2,2,2,3,2	12	1	84·0
11 *d*	13 06	606	468	11 13	138	13 07	17·4	−5·4	08 32	22·8	17 57	1195	1097	06 10	98	3,4,4,3,5,4,3,4	30	1	84·0
12	22 09	602	476	10 07	126	14 05	14·4	−8·2	01 35	22·6	17 15	1147	1080	00 43	67	4,3,3,2,2,3,2,4	23	1	84·0
13	19 07	567	477	11 05	90	13 00	13·7	−4·4	07 48	18·1	16 30	1142	1117	12 20	25	2,2,2,2,1,2,3,2	16	1	84·0
14 *d*	21 04	*682*	390	12 11	*292*	21 09	20·0	*−19·0*	20 39	39·0	20 35	1190	1112	11 50	78	1,3,4,4,5,4,5,6	31	2	84·0
15 *d*	16 56	608	435	10 22	173	14 28	16·2	−8·1	02 28	24·3	18 12	1191	1089	02 20	102	4,3,2,3,3,4,4,4	27	1	84·1
16	18 50	593	458	10 28	135	13 49	14·4	−12·5	21 57	26·9	19 50	1173	1083	22 43	90	3,2,2,2,3,3,4,4	23	1	84·1
17	21 46	606	437	10 27	169	14 01	18·2	−5·7	21 40	23·9	15 22	1172	1099	07 53	73	3,3,3,3,4,3,3,4	26	1	84·1
18	21 24	555	464	10 37	91	13 23	13·5	−0·4	06 34	13·9	18 43	1150	1119	12 05	31	1,0,1,1,2,2,2,3	12	0	84·1
19	18 09	550	483	09 42	67	13 11	15·2	−7·9	00 52	23·1	19 30	1147	1122	00 45	25	3,2,1,2,2,2,2,1	15	1	84·1
20	19 00	551	475	10 11	76	12 50	12·5	−1·6	07 57	14·1	20 30	1146	1120	11 50	26	1,2,2,1,2,2,2,1	13	0	84·1
21 *q*	23 15	550	476	10 37	74	13 23	14·9	−2·6	07 13	17·5	16 50	1143	1112	11 40	31	1,0,0,2,0,1,1,2	7	0	84·1
22 *q*	24 00	543	489	09 40	*54*	13 23	11·4	−2·4	07 10	13·8	16 00	1142	1114	11 33	28	1,0,0,1,0,2,1,1	6	0	84·1
23 *q*	24 00	562	484	09 35	78	12 48	13·4	−1·9	08 05	15·3	06 50	1143	1108	10 49	35	0,1,0,2,2,1,2,2	10	0	84·1
24	02 43	569	507	09 24	62	14 12	13·5	−3·7	06 55	17·2	17 33	1141	1105	12 30	36	2,2,2,1,2,2,2,1	14	1	84·1
25	02 18	548	472	09 00	76	12 48	12·7	−6·0	07 19	18·7	16 56	1138	1105	10 50	33	3,2,2,3,2,2,2,0	16	1	84·1
26 *q*	19 30	553	475	09 33	78	13 28	12·7	−2·1	07 58	14·8	16 38	1137	1107	12 12	30	0,0,2,2,1,2,2,0	9	0	84·1
27	21 12	552	472	10 30	80	12 03	12·6	−3·5	06 05	16·1	23 02	1138	1117	11 22	*21*	0,1,3,3,2,2,2,2	15	1	84·1
28	17 55	559	484	09 41	75	13 30	18·1	−1·5	04 07	19·6	19 39	1144	1107	11 10	37	2,2,1,2,2,2,2,0	13	1	84·1
29 *q*	17 10	551	480	10 17	71	13 30	14·2	−0·9	07 18	15·1	17 47	1141	1107	12 09	34	0,1,1,1,0,1,0,2	6	0	84·1
30	22 46	609	495	10 40	114	14 22	11·1	0·0	07 50	11·1	22 20	1142	1112	12 00	30	0,1,0,1,1,2,3,4	12	1	84·1
31 *d*	00 42	606	*320*	05 18	286	05 25	*37·8*	−14·7	02 21	*52·5*	17 21	1219	*907*	05 43	*312*	5,6,5,3,4,4,3,1	21	2	84·1
Mean	− −	575	469	− −	105	− −	15·2	4 4	− −	19·6	− −	1158	1103	− −	55	−	−	0·74	84·1

d denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

147 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	515	515	515	515	515	516	516	512	505	494	480	483	490	492	494	504	517	535	541	536	531	532	533	539	514
2	539	532	531	526	525	526	510	516	525	512	503	500	501	499	508	519	529	532	540	546	532	534	533	536	523
3	534	530	534	532	530	533	533	531	518	504	487	479	499	512	519	539	546	527	521	533	536	538	534	536	524
4	546	544	544	543	547	546	523	542	507	507	463	476	493	495	523	526	528	534	543	530	528	528	537	546	525
5	528	523	523	526	529	526	523	503	487	481	479	483	486	512	512	528	545	548	534	531	534	542	551	540	520
6 *q*	543	523	528	519	531	542	532	527	518	498	483	483	498	512	519	526	531	534	535	538	538	538	539	538	524
7	539	541	542	542	539	540	539	534	507	479	493	503	493	507	493	498	522	519	535	527	535	539	536	539	523
8	529	531	523	524	525	525	531	510	504	499	495	506	492	506	514	518	529	535	538	532	524	528	540	531	520
9	530	530	532	530	527	528	519	512	503	500	496	507	517	528	542	534	551	544	531	529	526	530	536	523	525
10	531	530	532	529	528	527	520	515	483	463	499	510	521	507	511	516	531	530	532	532	532	542	559	527	521
11	524	522	523	528	532	539	531	523	506	494	486	487	509	510	521	544	529	547	535	543	542	536	530	535	524
12	536	528	529	531	534	532	519	500	494	499	493	491	489	502	504	523	535	536	539	537	542	534	528	528	520
13	532	532	531	534	531	528	535	527	511	492	484	483	489	503	520	519	531	535	544	542	543	542	547	558	525
14	535	518	527	528	531	533	532	525	508	499	497	492	491	498	513	523	530	537	544	545	544	542	540	542	524
15 *q*	531	531	532	531	531	535	531	522	504	495	483	484	491	502	519	540	528	540	544	540	542	540	542	542	524
16	540	535	534	535	535	536	535	527	515	494	487	486	493	519	533	550	593	588	569	513	479	509	516	534	*527*
17	479	401	459	506	509	512	519	511	505	493	488	491	494	492	502	512	527	544	533	546	547	503	502	512	504
18 *d*	494	508	358	326	324	412	361	384	335	390	436	451	423	440	555	654	571	546	578	464	492	498	500	495	458
19 *d*	444	431	475	400	461	468	464	440	479	467	448	438	459	560	526	497	491	494	498	507	495	502	496	495	476
20	514	494	497	496	499	500	491	495	500	487	477	466	459	461	472	491	499	513	518	510	513	512	509	507	495
21	520	510	504	504	505	507	510	511	503	488	483	466	480	494	495	506	510	564	552	540	531	543	527	521	511
22 *d*	518	512	507	491	452	309	111	328	374	392	361	404	481	753	617	464	571	544	504	498	462	468	490	512	463
23 *d*	492	500	373	313	373	357	274	262	327	363	391	413	482	519	532	693	774	559	500	495	515	466	448	439	*453*
24	489	483	472	476	492	487	491	475	472	462	454	461	470	483	495	487	492	501	506	506	507	508	507	508	487
25 *q*	507	511	510	508	510	510	506	497	485	475	473	474	477	484	488	487	504	515	515	517	514	517	519	519	501
26 *q*	519	516	514	515	517	516	512	503	497	483	475	468	480	495	495	504	504	515	519	523	526	523	524	523	507
27	523	524	530	528	519	516	512	464	445	483	479	475	476	472	490	523	544	588	532	465	475	475	479	493	500
28 *d*	496	499	514	510	535	539	480	475	475	456	424	435	480	529	534	721	626	665	478	433	456	325	409	392	495
29	324	448	437	462	485	485	484	481	475	468	459	463	463	488	503	508	519	519	496	499	500	500	511	495	478
30	475	475	475	490	515	495	523	511	511	469	452	455	463	475	494	487	515	510	514	507	502	498	509	512	493
Mean	511	509	503	500	506	504	489	489	483	476	*470*	474	485	508	515	531	*541*	540	529	519	518	513	518	517	506

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

148 ESKDALEMUIR (D) — 12° + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	1·7	2·0	2·1	2·0	1·5	0·8	0·1	0·0	0·2	0·4	1·4	3·8	7·0	9·9	10·0	9·2	7·7	6·5	5·2	4·8	4·4	3·8	3·0	3·0	3·8
2	3·0	2·8	2·7	3·2	2·8	0·2	0·0	1·2	0·2	0·9	2·0	6·0	9·1	10·4	11·9	11·7	9·2	7·1	2·6	4·7	4·0	4·1	3·7	4·1	4·5
3	4·6	3·7	6·1	4·4	2·9	1·8	0·4	-1·3	-1·7	-0·1	2·8	6·5	11·7	14·8	15·0	15·5	14·5	7·4	4·8	5·2	4·6	1·0	1·9	4·6	5·5
4	3·9	3·4	1·9	2·0	2·6	2·8	4·6	3·1	0·7	1·5	2·6	7·5	10·7	12·5	13·1	12·1	9·2	3·6	4·8	2·8	1·4	2·7	4·3	3·9	4·9
5	-1·8	2·0	3·2	2·9	2·6	1·3	-0·4	0·0	2·6	3·0	5·3	8·7	10·7	12·7	12·7	12·0	9·5	6·0	6·4	5·6	5·7	5·5	2·7	1·7	5·0
6 *q*	-0·8	-1·6	1·2	6·3	7·3	2·8	-0·7	-2·7	-2·5	-1·0	1·1	6·3	10·7	11·2	9·9	8·4	7·4	6·2	5·1	5·3	5·3	4·7	4·5	4·0	4·1
7	3·7	3·7	3·6	3·1	2·9	2·6	2·8	1·9	-0·1	5·9	11·1	13·7	12·9	16·3	13·6	8·3	6·2	4·2	3·9	2·1	3·0	7·1	4·4	4·2	5·9
8	3·2	3·5	2·0	1·1	1·6	0·7	-0·6	0·5	1·3	3·9	6·2	10·0	11·1	10·1	9·0	7·3	6·2	5·4	3·7	1·2	2·9	2·6	1·9	-3·2	3·8
9	2·7	2·2	1·8	0·1	0·8	0·5	0·5	0·1	-0·1	1·3	4·6	7·3	9·2	10·5	11·9	12·0	11·9	8·9	3·2	2·9	4·9	4·5	1·5	3·1	4·4
10	2·7	1·6	2·5	2·1	1·4	0·3	-0·6	-1·7	0·3	6·9	6·4	8·0	11·5	11·8	12·1	8·3	7·8	6·4	6·4	4·8	4·7	4·5	8·3	1·0	4·9
11	-0·6	0·1	1·7	2·3	1·1	1·1	0·9	0·1	-0·2	1·7	4·3	6·8	10·0	11·1	10·5	11·8	9·6	8·1	6·0	2·6	5·1	4·5	3·7	1·9	4·3
12	3·3	2·4	2·0	2·3	2·7	1·4	-0·4	2·1	3·5	1·8	3·6	8·1	11·6	12·8	9·9	9·3	7·9	6·4	5·6	4·7	3·8	1·4	-3·4	2·7	4·4
13	3·4	3·4	2·6	2·5	2·6	5·3	-0·4	-0·9	-0·8	0·7	2·7	6·3	9·9	12·7	12·7	10·0	8·0	6·5	5·4	4·5	3·8	3·8	3·1	-0·4	4·5
14	-3·9	0·1	2·0	2·9	2·5	2·3	0·8	-1·4	-2·6	-1·7	1·3	6·2	9·0	11·0	10·9	9·8	7·6	5·7	5·1	4·6	4·0	1·9	1·9	0·3	3·3
15 *q*	2·1	2·8	2·1	2·6	1·3	1·0	-0·3	-1·7	-2·1	-0·9	2·4	7·1	11·9	13·3	13·0	11·6	7·4	5·6	5·4	4·7	4·7	4·5	4·1	3·6	4·4
16	2·8	1·5	2·1	1·9	2·0	1·9	1·7	0·5	-0·7	-0·3	3·0	5·7	9·3	12·1	12·0	10·7	11·8	12·1	7·7	-7·1	-1·3	4·2	2·7	-2·9	3·9
17	-6·8	-9·5	-2·7	0·7	1·0	5·9	3·9	-3·0	-2·8	-0·2	3·1	7·4	9·1	10·3	9·7	8·2	4·7	5·6	4·3	1·0	-0·7	0·1	0·7	7·3	2·4
18 *d*	7·1	-6·3	-0·8	-1·7	-14·5	8·3	13·6	3·1	7·3	11·5	9·0	7·8	9·8	9·8	13·5	17·0	17·1	9·4	17·2	1·3	-1·1	2·2	-1·5	3·1	5·9
19 *d*	-1·7	-3·4	-8·2	5·3	-2·0	-5·1	-3·5	-5·1	-3·8	-1·2	4·3	9·2	15·6	13·1	16·6	8·1	6·4	4·7	4·7	5·1	2·9	2·9	3·6	2·9	3·0
20	0·1	0·6	1·0	1·1	1·2	-0·1	0·7	4·3	1·6	0·1	0·2	3·0	5·6	7·3	7·2	7·4	7·2	6·4	5·8	4·8	3·7	2·9	2·4	2·4	3·2
21	6·4	0·7	1·2	0·9	1·0	0·4	0·1	-0·7	-1·3	0·2	2·8	6·3	11·2	12·1	12·0	9·7	7·7	2·7	2·7	8·1	7·0	7·0	4·7	1·1	4·3
22 *d*	0·2	-1·5	-2·2	-7·0	14·7	28·9	-1·9	-13·4	-9·8	2·8	4·1	-13·1	8·8	10·3	30·7	33·3	19·0	10·0	6·9	-15·2	1·9	2·6	-5·3	1·0	4·4
23 *d*	9·1	8·9	9·3	15·9	17·2	16·3	20·7	3·3	1·5	7·3	5·2	9·6	9·1	9·2	7·7	17·0	5·9	4·6	-0·6	1·1	4·6	-5·7	-6·2	-5·7	*6·9*
24	-9·1	-4·4	-4·7	2·7	-0·5	-1·6	-1·3	-2·5	-3·2	-1·9	1·1	4·9	6·1	8·6	9·2	7·1	3·9	3·2	3·7	2·9	3·4	3·5	3·5	3·3	1·6
25 *q*	3·3	3·5	3·4	2·8	2·8	2·0	1·0	-0·3	-0·2	1·2	3·6	7·1	8·9	9·5	8·7	7·4	5·8	3·7	3·0	2·7	2·0	3·2	3·1	1·9	3·8
26 *q*	2·7	3·1	2·8	2·4	2·3	1·9	0·9	0·7	-0·3	0·6	3·3	6·5	9·2	11·9	11·7	9·9	9·0	6·4	4·7	3·8	3·4	-0·6	1·7	2·4	4·2
27	1·9	2·2	3·3	1·5	1·6	1·3	2·0	5·3	5·5	6·2	5·1	6·6	10·0	9·9	9·9	8·7	7·9	-3·3	-5·1	-9·8	-2·7	-5·2	-10·7	-1·5	2·1
28 *d*	0·8	2·3	5·2	-1·3	-3·1	2·9	9·7	21·8	9·2	4·7	10·2	10·1	10·4	10·2	11·1	14·6	6·0	4·7	1·7	3·6	-1·9	0·9	-5·1	-6·9	5·1
29	4.3	8.2	-10·5	-3·4	-2·5	-2·6	-2·8	-3·6	-3·1	-0·4	2·7	7·1	9·3	10·8	11·6	12·8	7·9	-0·2	1·2	-4·2	-1·6	0·6	-0·6	-6·6	*1·4*
30	-5·5	-6·5	2·9	3·4	6·6	11·0	10·8	9·1	5·5	2·9	4·6	9·1	9·6	9·5	9·1	4·7	1·4	2·4	-0·3	-9·7	-3·1	-2·0	2·3	3·5	3·4
Mean	1·4	1·1	1·3	2·2	2·1	3·2	2·1	0·6	*0·1*	1·9	4·0	6·7	10·0	11·2	*11·9*	11·1	8·4	5·5	4·4	1·6	2·6	2·4	1·4	1·3	4·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

149 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 q	1144	1143	1143	1144	1144	1144	1142	1140	1132	1130	1134	1130	1123	1126	1135	1143	1148	1147	1143	1141	1138	1138	1137	1136	1139
2	1135	1129	1124	1129	1135	1137	1136	1125	1120	1124	1123	1123	1124	1125	1129	1131	1137	1144	1151	1148	1148	1146	1142	1135	1133
3	1125	1124	1123	1123	1129	1133	1135	1135	1130	1129	1129	1123	1117	1118	1128	1138	1154	1167	1161	1150	1144	1140	1129	1129	1134
4	1130	1131	1132	1134	1133	1136	1136	1129	1130	1131	1137	1138	1136	1144	1152	1165	1168	1173	1166	1165	1161	1153	1144	1118	1143
5	1115	1123	1130	1135	1137	1141	1143	1141	1138	1131	1129	1129	1135	1135	1141	1143	1159	1167	1166	1160	1152	1144	1137	1129	1140
6 q	1119	1117	1120	1121	1108	1112	1125	1131	1131	1132	1126	1118	1113	1118	1123	1126	1130	1134	1133	1131	1131	1135	1135	1135	1125
7	1134	1132	1131	1130	1130	1131	1131	1129	1125	1123	1117	1119	1127	1143	1153	1154	1150	1144	1144	1150	1152	1131	1129	1131	1135
8	1128	1120	1129	1134	1136	1137	1137	1139	1141	1135	1131	1124	1129	1137	1141	1143	1144	1143	1147	1157	1150	1147	1132	1129	1137
9	1125	1131	1134	1135	1136	1136	1137	1137	1135	1132	1129	1124	1125	1128	1143	1150	1165	1179	1189	1167	1149	1143	1141	1142	1142
10	1141	1141	1138	1137	1136	1136	1137	1134	1130	1126	1124	1124	1126	1134	1141	1140	1140	1142	1140	1141	1137	1136	1119	1094	1133
11	1114	1126	1131	1132	1134	1132	1131	1132	1132	1129	1128	1125	1123	1125	1131	1135	1141	1147	1150	1148	1141	1142	1143	1141	1134
12	1135	1136	1136	1135	1135	1134	1135	1131	1125	1122	1120	1119	1126	1136	1138	1136	1135	1136	1136	1136	1136	1142	1141	1137	1133
13	1136	1136	1136	1135	1134	1128	1130	1130	1127	1129	1125	1125	1125	1129	1135	1136	1136	1135	1135	1134	1134	1135	1132	1125	1132
14	1117	1118	1125	1129	1130	1131	1131	1131	1130	1126	1124	1120	1118	1122	1124	1129	1132	1135	1135	1135	1135	1136	1135	1123	1128
15 q	1128	1130	1132	1134	1132	1134	1130	1131	1129	1124	1116	1110	1106	1109	1118	1132	1135	1135	1135	1135	1135	1130	1130	1130	1127
16	1130	1130	1130	1131	1130	1130	1131	1134	1133	1127	1117	1110	1107	1113	1117	1125	1136	1178	1244	1189	1142	1159	1150	1096	1137
17	1081	1017	986	1083	1099	1099	1119	1130	1128	1129	1129	1129	1132	1137	1149	1153	1160	1159	1160	1159	1129	1141	1137	1120	*1119*
18 d	1009	963	795	791	883	916	997	1069	1106	1125	1159	1176	1232	1279	1306	1334	1322	1275	1264	1173	1190	1189	1159	1153	*1119*
19 d	1066	1034	969	939	1000	1092	1118	1120	1135	1138	1140	1143	1153	1239	1237	1256	1198	1173	1160	1158	1162	1166	1161	1155	1130
20	1141	1142	1148	1150	1150	1148	1144	1132	1132	1136	1140	1141	1142	1143	1145	1148	1152	1152	1165	1166	1160	1158	1154	1149	1147
21	1128	1131	1140	1143	1143	1143	1145	1149	1150	1147	1137	1128	1123	1129	1141	1151	1153	1155	1165	1163	1164	1159	1162	1170	1147
22 d	1162	1130	1126	1123	1052	849	854	1027	1104	1131	1142	1207	1225	1293	1461	1288	1331	1347	1304	1291	1186	1148	1115	1083	1166
23 d	1059	985	908	962	904	964	955	1015	1134	1154	1173	1198	1240	1286	1323	1322	1346	1243	1214	1204	1189	1141	1117	1095	1130
24	1106	1107	1116	1114	1126	1143	1152	1163	1167	1166	1162	1164	1159	1155	1154	1154	1159	1159	1156	1155	1154	1153	1154	1154	1148
25 q	1154	1153	1150	1153	1153	1154	1155	1155	1155	1147	1142	1135	1132	1141	1147	1147	1149	1155	1158	1156	1155	1154	1152	1150	1150
26 q	1147	1147	1148	1148	1149	1149	1149	1148	1148	1146	1143	1141	1140	1144	1152	1160	1155	1154	1154	1154	1151	1153	1149	1147	1149
27	1147	1146	1132	1131	1137	1142	1146	1146	1142	1139	1147	1147	1154	1168	1176	1200	1225	1238	1209	1225	1208	1171	1152	1142	1165
28 d	1147	1146	1117	1074	1074	1094	1107	1093	1111	1137	1149	1167	1208	1264	1278	1328	1292	1395	1261	1220	1183	1052	1080	1090	*1169*
29	1011	997	1080	1111	1127	1150	1159	1165	1170	1167	1166	1167	1176	1195	1214	1224	1262	1269	1219	1196	1167	1166	1155	1137	1160
30	1123	1113	1111	1099	1101	1111	1099	1124	1137	1153	1159	1162	1168	1171	1173	1193	1202	1190	1186	1183	1166	1165	1159	1154	1150
Mean	1118	1109	*1101*	1105	1107	1109	1115	1125	1134	1135	1137	1139	1145	1159	1173	1176	*1181*	1179	1175	1166	1155	1146	1139	1134	1140

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

150 ESKDALEMUIR — SEPTEMBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices K	Sum of K indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force										
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +		Minimum 12° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range						
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1 q	18 05	544	477	11 19	67	13 35	11·0	−0·7	08 18	11·7	16 40	1149	1123	12 42	26	1,0,1,2,2,3,2,1	12	0	84·1
2	18 49	551	496	06 41	*55*	14 31	12·7	−2·2	06 00	14·9	18 50	1155	1119	08 21	36	2,2,3,1,2,1,2,1	14	0	84·1
3	21 54	563	473	11 02	90	15 48	16·0	−4·0	21 58	20·0	17 39	1170	1114	12 58	56	2,1,0,2,2,3,3,3	16	1	84·1
4	17 54	556	445	10 30	111	14 47	14·1	−4·3	24 00	18·4	17 21	1177	1107	23 52	70	2,2,3,3,3,3,3,4	23	1	84·1
5	22 50	571	467	11 51	104	13 59	15·4	−5·9	00 04	21·3	17 22	1168	1112	00 01	56	3,1,3,3,3,3,2,3	21	1	84·1
6 q	05 09	551	479	11 01	72	13 12	11·6	−3·3	01 13	14·9	17 50	1136	1106	05 10	30	3,3,1,1,2,0,0,0	10	0	84·1
7	21 21	559	452	09 08	107	13 29	18·0	−6·4	08 07	24·4	19 53	1158	1114	10 10	44	1,0,3,4,3,3,3,3	20	1	84·1
8	17 38	550	487	10 55	63	11 49	12·0	−6·2	23 16	18·2	19 33	1160	1118	01 34	42	2,1,2,2,2,2,2,3	16	1	84·1
9	16 08	567	494	10 48	73	15 42	14·1	−1·6	03 41	15·7	18 31	1197	1120	12 04	77	2,2,2,2,3,3,3,2	19	1	84·1
10	22 32	590	440	09 15	150	22 46	15·1	−3·8	23 59	18·9	14 44	1143	1088	23 12	55	2,1,3,4,3,2,1,4	20	1	84·1
11	15 36	566	468	11 09	98	15 38	13·5	−3·8	00 01	17·3	18 07	1153	1112	00 01	41	2,2,2,2,2,3,3,2	18	1	84·1
12	22 09	550	471	11 40	79	13 31	13·6	−5·9	22 28	19·5	22 30	1143	1117	11 20	26	2,1,3,3,2,2,2,3	18	1	84·1
13	23 25	563	478	11 23	85	14 11	14·2	−1·9	24 00	16·1	14 50	1137	1119	24 00	*18*	1,2,3,1,3,2,2,2	16	0	84·1
14	00 01	558	483	11 32	75	14 04	11·8	−4·9	00 31	16·7	21 01	1141	1115	00 59	26	3,0,1,2,1,1,2,3	13	0	84·1
15 q	15 32	555	480	10 52	75	14 03	14·4	−3·6	07 58	18·0	16 00	1137	1105	12 15	32	1,1,2,1,3,3,1,1	13	0	84·1
16	16 41	627	414	20 03	213	17 14	16·2	−28·6	19 38	44·8	19 03	1333	1070	23 59	263	1,1,1,2,4,4,6,4	23	2	84·1
17	20 00	618	341	01 49	277	24 00	23·4	−15·9	01 13	39·3	19 05	1165	927	02 03	238	5,4,2,2,2,3,5,5	28	2	84·1
18 d	15 32	701	151	03 54	550	18 59	46·0	−37·3	03 59	83·3	16 51	1364	*759*	03 12	605	7,7,5,5,6,6,7,4	47	2	84·1
19 d	13 26	654	326	03 31	328	14 49	26·2	−14·2	02 47	40·4	14 59	1286	883	03 46	403	5,6,3,3,6,5,2,3	33	2	84·1
20	00 08	532	456	12 59	76	07 15	8·6	−3·3	00 21	11·9	18 54	1170	1129	07 42	41	3,1,3,2,1,3,3,2	18	1	84·1
21	17 15	654	448	11 21	206	17 13	15·3	−7·0	17 52	22·3	23 56	1177	1117	12 04	60	3,1,1,3,3,5,4,4	24	1	84·1
22 d	14 29	*1374*	*−48*	06 19	*1422*	14 53	*54·1*	*−111·6*	11 40	*165·7*	14 06	*1707*	771	06 16	*936*	3,8,8,8,9,9,6,5	56	2	84·1
23 d	16 22	1049	127	06 22	922	15 43	39·4	−28·7	21 12	68·1	16 22	1534	872	04 26	662	6,6,6,5,5,8,5,6	47	2	84·1
24	00 27	519	432	11 30	87	13 05	10·2	−15·6	00 19	25·8	08 05	1170	1084	00 07	86	4,3,3,3,3,3,1,0	20	1	84·1
25 q	23 03	524	470	12 00	54	12 56	10·5	−0·9	07 21	*11·4*	18 13	1159	1131	12 26	.28	1,1,2,2,1,2,1,1	11	0	84·1
26 q	22 22	531	463	11 39	68	13 48	14·4	−2·5	21 33	16·9	15 38	1161	1136	12 00	25	1,1,2,2,2,2,1,2	13	0	84·1
27	17 44	662	424	08 21	238	13 01	12·7	−23·3	17 39	36·0	19 16	1274	1129	03 22	145	2,2,4,3,3,5,5,4	28	1	84·1
28 d	15 39	1022	115	21 13	907	15 37	35·2	−31·3	20 54	66·5	17 19	1516	951	19 59	565	3,4,5,4,4,8,6,7	41	2	84·1
29	01 09	598	216	00 04	382	00 40	26·2	−17·0	00 31	43·2	17 39	1081	829	01 13	252	7,3,1,2,4,4,4,3	28	2	84·1
30	19 37	542	435	10 30	107	05 55	19·2	−19·3	19 22	38·5	15 59	1204	1092	06 10	112	4,4,3,3,3,4,4,3	28	1	84·1
Mean	− −	633	395	− −	238	− −	18·8	−13·8	− −	32·7	− −	1221	1052	− −	169	−	−	1·00	84·1

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

151 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	515	503	504	518	519	517	527	504	471	486	480	467	467	475	483	490	507	512	506	514	508	516	521	515	501
2	515	512	512	515	513	515	516	510	482	464	457	459	469	479	476	492	507	497	512	517	523	523	523	527	501
3	520	527	526	528	526	511	538	521	505	487	479	480	490	498	496	498	499	508	519	519	519	520	523	523	511
4	522	523	517	527	527	534	529	520	504	484	484	487	489	496	504	514	499	508	524	527	523	519	520	526	513
5	526	527	525	534	530	526	525	530	513	503	500	487	495	522	515	498	503	519	495	523	526	527	528	526	517
6	525	521	523	520	531	529	523	522	499	475	485	487	493	503	507	510	508	510	513	504	506	519	511	503	509
7	514	517	519	516	528	535	527	524	514	499	494	479	475	485	497	498	499	506	520	523	531	534	534	531	512
8 q	527	523	525	525	527	524	526	527	518	504	491	487	493	502	512	524	531	536	547	546	550	545	546	543	524
9 d	541	539	538	519	524	531	515	520	511	506	500	487	483	488	497	518	523	521	514	504	512	515	512	519	514
10	512	516	519	516	520	520	522	521	508	493	484	487	497	496	510	515	519	524	528	535	515	512	519	522	513
11	527	529	525	522	519	521	522	518	515	509	505	507	510	521	528	511	514	522	527	525	522	527	528	533	520
12	530	526	522	534	541	526	527	520	505	488	482	482	486	494	505	514	522	523	523	528	526	530	526	535	516
13 q	538	522	526	529	531	531	530	522	509	492	482	483	486	497	510	519	526	529	533	535	537	535	538	524	519
14	525	535	528	527	527	493	534	518	498	485	478	474	482	493	505	511	525	534	538	537	530	529	526	529	515
15	530	531	530	532	530	530	530	525	506	486	479	486	502	514	518	527	529	534	535	541	534	535	532	532	522
16	527	527	528	528	531	533	523	526	518	492	490	497	505	506	514	517	527	530	533	530	525	544	528	530	521
17 q	530	529	528	527	530	528	529	529	514	503	492	490	494	503	513	523	527	531	534	539	543	541	541	541	523
18 q	538	538	538	533	534	533	531	527	519	510	502	501	507	514	522	527	527	530	533	532	534	538	539	541	527
19	530	529	526	530	532	533	530	526	517	505	503	505	508	512	516	521	529	534	526	518	523	542	530	507	522
20 d	493	499	518	524	541	530	534	528	518	499	491	504	499	502	514	531	528	528	537	519	514	506	518	525	517
21	525	525	527	522	524	523	527	526	514	501	490	486	494	503	510	519	523	529	536	532	530	539	540	539	520
22	535	533	530	531	534	535	537	537	523	503	495	494	490	495	513	517	521	522	529	525	531	532	533	527	522
23	537	538	532	535	535	533	533	534	524	507	501	502	493	501	502	513	522	531	532	534	532	530	527	526	523
24	530	528	527	527	530	531	526	518	508	494	483	484	493	494	510	509	521	519	525	525	531	530	530	530	517
25	522	526	527	532	532	534	537	524	510	485	482	476	484	499	509	516	519	518	508	513	520	520	516	514	513
26 d	502	506	530	522	517	531	537	540	526	494	486	472	482	508	516	522	507	515	509	499	482	505	530	431	507
27 d	461	459	420	470	506	511	511	493	468	442	452	460	467	498	493	479	486	490	500	507	538	511	490	511	484
28	504	507	506	507	511	510	509	514	497	475	474	479	482	488	496	503	502	511	512	519	522	522	520	530	504
29	525	511	509	518	524	527	530	522	509	490	486	490	501	495	498	501	508	515	520	516	509	512	523	534	511
30 q	523	524	522	526	526	528	524	526	514	498	488	490	495	502	507	511	514	522	529	531	530	530	529	526	517
31 d	527	528	529	529	532	530	529	526	503	506	509	502	499	492	496	511	510	510	492	496	492	493	488	501	510
Mean	522	521	521	523	527	526	527	523	508	492	487	486	491	499	506	512	515	520	522	523	523	525	525	523	514

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

152 ESKDALEMUIR (D) — 12° + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	0·9	0·2	2·6	2·5	2·9	5·3	3·3	3·7	2·7	0·6	3·5	7·1	8·4	10·8	11·7	7·1	6·3	4·9	1·1	-5·4	0·6	3·6	1·1	1·0	3·6
2	3·4	3·3	2·5	3·4	1·9	1·7	0·5	-0·7	-0·6	0·4	2·7	6·5	9·8	10·8	9·1	7·6	6·2	3·4	2·7	3·7	3·9	4·5	4·4	3·1	3·9
3	1·8	1·9	0·1	0·7	1·8	7·1	5·1	0·7	-0·7	0·1	2·7	7·2	11·9	12·5	12·4	9·3	5·7	5·5	4·5	3·8	3·8	3·7	3·0	3·1	4·5
4	3·5	3·0	3·5	1·9	-0·8	1·1	1·5	-0·1	1·6	2·9	4·4	9·0	11·0	10·9	10·2	7·1	3·3	2·9	4·7	4·4	3·3	3·4	3·3	2·9	4·1
5	3·4	2·8	2·3	5·0	3·8	0·7	0·1	-0·3	-0·3	1·7	5·6	7·3	9·5	12·8	14·3	13·8	9·3	8·2	-1·0	3·4	4·1	4·2	4·1	3·8	4·9
6	3·2	2·9	4·0	5·6	3·1	1·4	0·8	0·3	0·5	3·5	4·7	7·2	8·9	9·8	8·1	6·4	4·3	2·7	2·3	-0·7	-6·5	-1·6	-1·0	-4·8	2·7
7	-0·7	1·2	1·3	3·8	3·5	2·9	2·0	1·1	1·1	1·8	3·5	7·2	7·3	11·1	11·1	10·1	9·7	8·3	5·2	4·4	3·8	2·0	2·7	2·7	4·5
8 q	2·7	2·5	2·7	2·4	2·3	2·0	1·6	0·3	-1·0	-1·0	1·0	3·9	6·8	8·2	8·0	7·4	5·9	5·9	6·1	5·5	5·4	3·9	3·7	3·6	3·7
9 d	2·7	1·0	-1·8	-5·7	-1·8	-2·5	-3·5	-0·2	0·4	1·2	1·9	5·3	8·4	9·7	6·9	6·1	5·1	4·7	4·5	3·5	1·1	-0·3	3·7	0·1	2·1
10	0·2	1·2	-0·6	2·5	2·6	2·4	1·4	0·1	-0·6	-0·7	2·3	5·7	11·4	11·0	11·3	9·0	5·9	5·2	4·6	4·4	-1·4	-4·1	0·2	2·8	3·2
11	2·9	4·4	1·8	1·3	1·8	1·8	1·1	0·3	0·3	1·8	4·6	7·7	9·0	11·0	10·9	9·0	6·2	4·9	4·5	1·0	0·1	2·0	3·4	3·3	4·0
12	3·3	2·0	5·4	-0·9	-0·1	1·2	2·9	-2·0	-2·4	-1·4	1·9	5·9	7·5	7·4	6·6	5·2	4·2	4·1	4·0	3·7	3·3	2·8	2·2	5·2	3·0
13 q	5·3	2·8	2·6	2·6	2·4	2·2	1·5	0·5	-0·4	0·3	2·5	5·8	8·2	9·1	8·6	6·6	4·9	4·8	4·8	4·5	4·4	3·6	3·4	2·0	3·9
14	1·3	0·9	1·1	2·0	2·7	2·0	0·2	-1·0	-0·9	-1·7	2·2	7·5	11·3	12·3	10·8	7·6	5·1	4·9	5·5	5·4	3·3	3·9	3·6	2·8	3·9
15	3·5	3·0	2·9	2·5	2·1	2·0	0·9	-0·3	-2·4	-1·6	1·9	6·1	9·4	11·7	9·4	6·6	4·8	5·2	4·4	3·5	3·4	3·6	2·6	-1·4	3·5
16	1·0	2·1	2·3	2·0	1·9	1·1	1·8	2·4	-0·8	-0·7	2·8	8·3	10·3	10·4	10·1	7·0	5·6	4·7	5·2	4·6	2·4	-3·2	2·8	3·2	3·6
17 q	3·3	2·9	2·4	2·4	1·9	0·7	1·4	-0·6	-1·9	-1·9	1·2	5·5	8·4	9·8	9·3	7·5	5·8	5·6	5·4	5·1	4·4	3·9	3·7	3·5	3·7
18 q	3·3	3·3	3·3	2·5	2·1	2·0	1·8	1·2	0·4	1·7	4·5	7·1	9·0	9·4	7·9	5·8	4·6	4·7	4·7	4·6	4·3	3·4	3·8	1·3	4·0
19	2·2	1·9	2·3	2·7	2·1	1·6	1·4	0·7	-0·6	0·7	3·4	7·0	8·4	8·9	8·4	6·4	5·4	4·7	2·6	3·7	3·0	1·0	1·3	-5·2	3·1
20 d	-5·3	1·1	0·9	0·8	-1·3	-0·9	3·3	3·9	-1·7	-0·8	1·4	3·3	8·0	10·2	9·3	9·3	8·2	6·6	5·1	3·0	1·1	-3·3	1·1	2·7	2·7
21	2·7	3·6	3·0	2·5	2·9	2·1	1·8	0·3	-1·3	-0·8	2·1	4·9	7·1	7·3	6·4	5·1	4·2	4·4	4·6	3·8	3·3	3·5	3·0	2·9	3·3
22	2·2	2·7	2·2	2·6	2·6	2·2	2·0	1·3	-0·2	0·4	3·5	7·3	8·8	8·3	7·0	5·3	4·6	3·7	3·5	3·5	3·4	3·3	2·2	2·0	3·5
23	3·5	1·5	0·2	1·2	1·7	4·5	3·7	5·0	2·3	3·5	5·0	9·0	8·2	8·2	6·2	4·4	4·1	4·0	3·9	3·6	3·2	1·7	2·0	2·7	3·9
24	2·6	3·1	2·6	2·1	2·0	1·8	1·0	0·1	-1·5	0·1	3·8	7·2	11·7	9·8	10·0	8·4	6·3	4·7	4·4	3·6	3·0	2·0	2·7	-0·4	3·8
25	-0·7	0·2	0·4	0·9	1·1	1·1	0·4	1·3	0·4	1·2	3·9	7·4	10·1	10·0	8·4	6·1	3·9	4·6	3·6	2·3	2·7	2·1	- 1·6	-1·4	2 9
26 d	-6·2	-0·6	-0·9	-3·7	0·0	7·4	6·3	3·7	3·6	1·8	6·3	9·0	11·0	10·1	9·5	8·7	5·5	5·2	1·7	2·0	-1·7	-10·8	-9·2	-16·3	1·8
27 d	-14·2	-9·9	-27·6	-12·9	-4·5	8·3	1·8	0·6	2·7	6·2	8·9	12·6	10·9	8·7	14·4	8·9	2·8	5·2	4·9	-2·6	-3·5	-2·9	-4·0	3·8	0·8
28	2·7	2·1	2·4	3·3	3·0	3·3	4·3	2·7	0·0	-0·9	1·9	6·9	8·9	9·0	8·0	6·8	4·0	-0·4	4·5	4·3	3·6	2·9	1·8	0·9	3·6
29	0·7	-0·8	2·9	4·5	2·0	1·5	1·0	1·0	1·0	3·3	5·4	6·4	8·7	9·5	8·3	7·1	5·8	5·2	4·2	2·6	-1·7	1·1	2·3	2·0	3·5
30 q	1·9	2·0	1·9	1·2	1·5	1·1	3·4	0·8	0·4	1·9	3·8	6·6	8·2	8·3	8·0	6·3	4·9	4·9	4·1	3·6	3·6	3·3	2·9	2·6	3·6
31 d	2·8	2·7	2·4	2·3	2·4	2·3	1·8	0·4	0·2	3·9	5·5	8·8	10·1	12·7	9·3	9·3	7·7	2·8	7·5	2·0	-0·5	-2·4	-3·6	-1·7	3·7
Mean	1·3	1·7	1·0	1·4	1·6	2·3	1·8	0·9	0·0	0·9	3·5	7·0	9·3	10·0	9·3	7·5	5·5	4·7	4·1	3·1	2·0	1·3	1·7	1·1	3·5

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

109 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1143	1141	1147	1148	1147	1143	1143	1147	1153	1161	1160	1165	1165	1170	1183	1188	1173	1172	1177	1178	1166	1158	1150	1149	*1159*
2	1148	1149	1149	1141	1140	1147	1154	1158	1160	1162	1159	1150	1150	1159	1176	1172	1172	1173	1173	1165	1159	1156	1156	1154	1158
3	1147	1138	1141	1140	1141	1136	1131	1141	1145	1149	1144	1138	1143	1156	1168	1179	1183	1166	1159	1157	1155	1155	1154	1153	1151
4	1153	1152	1144	1126	1130	1135	1137	1144	1144	1147	1143	1137	1141	1143	1150	1160	1176	1177	1161	1158	1160	1160	1158	1153	1150
5	1152	1148	1149	1144	1135	1141	1147	1147	1148	1147	1142	1143	1146	1155	1174	1194	1179	1180	1198	1175	1162	1156	1153	1153	1157
6	1152	1150	1143	1131	1125	1130	1140	1146	1146	1146	1141	1135	1136	1142	1147	1158	1161	1164	1166	1171	1166	1136	1131	1131	1146
7	1134	1140	1142	1144	1143	1143	1146	1148	1149	1147	1147	1144	1150	1148	1156	1180	1184	1171	1165	1165	1158	1152	1148	1147	1152
8 *q*	1147	1148	1147	1148	1148	1148	1148	1148	1148	1143	1138	1135	1135	1135	1140	1142	1143	1142	1142	1143	1143	1144	1144	1145	1143
9 *d*	1146	1144	1140	1133	1132	1125	1123	1124	1134	1137	1138	1138	1144	1150	1154	1155	1155	1153	1159	1165	1164	1160	1141	1092	1142
10	1125	1140	1141	1143	1143	1143	1143	1146	1147	1142	1137	1137	1137	1141	1144	1153	1154	1149	1147	1147	1158	1155	1149	1149	1145
11	1141	1137	1140	1141	1142	1141	1141	1141	1140	1136	1135	1135	1135	1138	1147	1156	1153	1148	1148	1150	1149	1144	1143	1143	1143
12	1143	1143	1135	1128	1129	1128	1120	1134	1142	1143	1138	1136	1137	1141	1144	1147	1148	1146	1144	1144	1143	1143	1143	1141	1139
13 *q*	1125	1132	1138	1141	1142	1142	1144	1148	1149	1144	1141	1136	1136	1137	1140	1145	1144	1141	1141	1141	1141	1141	1142	1146	1141
14	1147	1143	1143	1142	1143	1143	1147	1150	1152	1143	1135	1129	1130	1132	1141	1147	1147	1143	1142	1142	1143	1143	1144	1144	1142
15	1142	1142	1142	1142	1142	1142	1143	1146	1147	1143	1137	1130	1129	1132	1139	1142	1142	1141	1141	1141	1142	1141	1142	1142	1141
16	1138	1141	1142	1142	1142	1142	1142	1141	1142	1140	1136	1131	1134	1135	1141	1146	1147	1148	1147	1149	1153	1144	1141	1141	1142
17 *q*	1141	1141	1141	1141	1142	1142	1140	1138	1138	1133	1130	1130	1129	1129	1134	1138	1138	1137	1137	1137	1136	1137	1137	1136	1137
18 *q*	1136	1136	1136	1136	1137	1138	1138	1141	1137	1129	1126	1128	1126	1129	1133	1136	1136	1137	1138	1138	1138	1137	1137	1134	1135
19	1135	1136	1137	1137	1137	1138	1138	1140	1141	1136	1129	1125	1125	1128	1134	1137	1137	1142	1147	1149	1148	1142	1138	1119	1136
20 *d*	1111	1123	1129	1135	1131	1130	1125	1117	1122	1124	1123	1122	1125	1130	1136	1140	1141	1139	1141	1145	1150	1154	1146	1139	1132
21	1137	1137	1132	1135	1137	1138	1137	1141	1142	1141	1131	1131	1136	1140	1141	1142	1141	1138	1137	1140	1141	1138	1137	1137	1138
22	1137	1137	1137	1138	1137	1137	1136	1135	1137	1134	1129	1126	1127	1135	1136	1136	1138	1140	1138	1141	1141	1140	1140	1138	1136
23	1135	1130	1131	1130	1130	1129	1130	1131	1135	1135	1136	1137	1141	1142	1149	1153	1147	1144	1142	1141	1141	1141	1142	1142	1138
24	1140	1140	1140	1140	1139	1138	1140	1141	1143	1143	1138	1137	1141	1148	1152	1152	1152	1151	1148	1147	1145	1143	1141	1140	1143
25	1135	1126	1128	1129	1130	1131	1135	1137	1141	1141	1135	1134	1132	1134	1139	1147	1150	1153	1159	1160	1155	1149	1141	1131	1140
26 *d*	1127	1128	1118	1119	1123	1117	1104	1109	1118	1129	1130	1136	1141	1143	1150	1158	1167	1165	1170	1170	1172	1135	1057	1031	*1130*
27 *d*	1011	1000	1004	1057	1080	1103	1107	1125	1133	1142	1156	1155	1177	1212	1208	1203	1221	1196	1171	1168	1140	1138	1141	1124	1132
28	1116	1135	1143	1146	1146	1142	1137	1141	1146	1146	1142	1141	1146	1153	1154	1160	1164	1161	1155	1150	1148	1147	1146	1143	1146
29	1134	1134	1137	1136	1138	1141	1140	1140	1142	1139	1137	1141	1143	1148	1154	1159	1157	1153	1153	1154	1158	1152	1146	1126	1144
30 *q*	1132	1136	1140	1141	1141	1141	1138	1137	1139	1138	1137	1139	1143	1147	1149	1150	1154	1152	1148	1146	1143	1142	1142	1142	1142
31 *d*	1142	1141	1141	1141	1141	1141	1141	1141	1143	1136	1131	1132	1143	1155	1170	1165	1174	1191	1192	1191	1185	1173	1168	1148	1155
Mean	1134	1135	1135	1135	1136	1137	1137	1139	1142	1141	1138	1137	1139	1145	1151	1156	*1157*	1155	1154	1154	1152	1147	1142	1136	1143

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

110 ESKDALEMUIR — OCTOBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices K	Sum of K indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +	Minimum 12° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	h. m.	γ	γ	h. m.	′	h. m.	′	′	h. m.	γ	h. m.	γ	γ				°A.
1	19 23	546	08 46	456	90	14 11	12·6	19 10	-12·5	25·1	15 20	1191	01 22	1135	56	3,2,3,3,2,3,4,2	22	1	84·1
2	24 00	558	11 03	451	107	12 26	12·0	08 59	-2·1	14·1	14 49	1179	03 45	1135	44	1,2,3,1,3,2,2,3	17	1	84·2
3	00 01	558	10 54	472	86	13 33	13·5	01 50	-1·0	14·5	16 02	1186	06 20	1129	57	3,3,3,2,2,2,0,0	15	1	84·4
4	03 16	542	10 00	475	67	12 24	12·8	04 32	-1·3	14·1	17 04	1180	03 28	1123	57	2,3,2,2,2,3,2,2	18	1	84·5
5	03 40	540	18 40	468	72	14 56	17·2	18 48	-9·5	26·7	18 40	1209	04 12	1134	75	0,3,2,2,3,4,4,1	19	1	84·5
6	21 00	544	09 25	468	76	13 49	11·0	20 49	-15·8	26·8	19 40	1173	04 19	1124	49	2,3,3,2,2,2,4,3	21	1	84·5
7	05 55	548	12 04	464	84	14 57	12·6	00 01	-3·7	16·3	16 18	1189	00 09	1131	58	2,3,2,3,2,3,2,1	18	1	84·6
8 *q*	18 50	555	11 44	484	71	13 47	8·3	08 55	-1·7	10·0	03 20	1149	12 06	1134	15	1,1,1,2,0,1,1,2	9	0	84·6
9 *d*	01 17	553	23 00	436	117	22 53	14·3	03 32	-8·0	22·3	19 50	1167	23 18	1078	89	3,3,4,3,3,2,3,5	26	1	84·6
10	19 41	545	10 53	464	81	12 13	13·5	20 58	-8·9	22·4	20 53	1162	00 01	1102	60	3,1,2,3,3,1,4,4	21	1	84·6
11	00 53	541	11 30	498	*43*	13 31	12·8	19 50	-3·1	15·9	15 20	1159	11 50	1134	25	2,2,2,1,2,2,3,2	16	1	84·6
12	24 00	553	11 12	476	77	24 00	9·3	07 30	-4·4	13·7	16 15	1158	06 28	1118	40	3,3,3,1,2,2,1,3	18	1	84·6
13 *q*	00 01	553	10 40	478	75	00 04	9·5	08 27	-1·3	10·8	08 51	1149	00 30	1123	26	3,1,1,1,1,1,0,0,2	9	0	84·6
14	18 48	543	11 19	471	72	12 44	13·6	09 21	-2·7	16·3	08 23	1154	11 30	1129	25	2,0,2,2,2,2,2,1	13	0	84·6
15	19 25	545	09 42	474	71	13 49	12·7	08 52	-3·7	16·4	07 50	1148	12 07	1129	19	0,1,2,2,2,1,1,2	11	0	84·6
16	21 12	564	10 59	486	78	14 43	11·7	22 03	-4·9	16·6	20 15	1155	11 40	1131	24	1,0,2,3,2,2,2,3	15	1	84·5
17 *q*	20 43	549	12 22	487	62	13 42	10·1	09 10	-2·8	12·9	05 50	1143	10 30	1128	15	0,0,1,1,1,0,1,0	4	0	84·5
18 *q*	23 01	559	11 16	498	61	13 39	10·2	08 20	0·1	10·1	07 32	1141	12 50	1125	16	2,0,0,1,0,1,0,2	6	0	84·5
19	21 55	551	23 56	486	65	13 20	9·5	23 27	-7·9	17·4	19 14	1151	24 00	1106	45	0,1,0,1,2,2,3,4	13	1	84·5
20 *d*	04 18	561	10 41	482	79	15 10	11·7	00 11	-9·6	21·3	21 09	1159	00 07	1104	55	3,3,3,2,3,3,3,3	23	1	84·5
21	21 20	556	11 34	483	73	13 18	7·7	08 45	-2·1	9·8	09 17	1143	11 02	1129	*14*	2,1,1,1,1,2,3,2	13	1	84·5
22	07 19	543	13 13	484	59	11 49	9·8	08 52	-1·9	11·7	22 05	1142	11 21	1125	17	1,0,2,1,2,1,1,1	9	0	84·5
23	00 50	546	12 20	486	60	11 58	10·6	02 41	-0·8	11·4	15 20	1155	05 50	1127	28	2,2,2,2,2,2,0,1	13	0	84·5
24	24 00	539	11 00	474	65	12 46	16·5	24 00	-2·1	18·6	15 07	1153	12 00	1135	18	1,0,0,2,2,2,2,2	11	0	84·5
25	06 19	541	11 17	471	70	12 55	10·7	24 00	-6·3	17·0	19 11	1161	24 00	1119	42	3,1,2,1,2,2,2,3	16	1	84·5
26 *d*	22 04	*628*	23 59	385	243	11 59	13·5	23 26	-22·0	35·5	20 21	1176	23 50	1010	166	3,4,2,3,3,3,3,6	27	2	84·1
27 *d*	01 04	616	01 33	*356*	*260*	14 20	*18·7*	*33·9*	02 15	*52·6*	16 35	*1236*	*964*	00 34	*272*	6,5,4,3,4,3,4,4	33	2	84·1
28	23 53	541	10 32	465	76	13 18	10·2	-3·1	17 14	13·3	16 20	1165	11 08	1108	57	3,1,2,2,1,3,1,2	15	1	84·1
29	22 58	549	11 03	471	78	12 56	10·4	-3·2	20 35	13·6	15 40	1160	23 30	1124	36	3,3,1,2,2,1,3,3	18	1	84·1
30 *q*	20 30	533	10 26	484	49	12 56	9·0	-0·3	07 47	*9·3*	16 48	1155	00 01	1129	26	0,1,2,1,0,1,0,0	5	0	84·0
31 *d*	04 13	534	13 44	463	71	13 50	15·4	-5·3	22 16	20·7	17 26	1197	11 00	1129	68	0,0,2,2,3,3,3,2	15	1	83·8
Mean	- -	553	- -	467	85	- -	12·0	-6·0	- -	18·0	- -	1166	- -	1115	51	-	-	0·74	84·4

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

155 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	495	498	518	509	508	527	517	495	478	471	446	455	473	472	478	480	494	484	506	506	497	495	515	514	*493*
2	516	514	514	518	522	529	514	517	509	497	487	483	486	497	506	511	514	518	519	526	516	513	518	526	511
3	524	529	522	523	529	533	532	526	518	510	505	504	505	510	517	518	520	526	529	530	532	527	530	526	522
4	531	525	525	529	533	534	533	530	522	510	499	490	495	506	506	516	522	526	530	531	533	530	527	525	521
5	526	526	526	527	537	539	542	533	522	515	509	507	509	518	522	533	538	543	545	556	549	554	541	541	*532*
6 *d*	529	531	526	528	538	537	532	526	533	507	480	487	505	498	480	474	489	509	517	517	519	514	512	546	514
7	514	512	511	511	526	518	522	524	514	502	492	490	494	501	507	509	517	516	485	526	528	528	526	526	512
8	524	522	525	526	528	528	527	526	523	510	506	507	501	513	519	522	523	531	533	524	534	533	530	524	522
9	515	510	516	514	521	526	528	526	518	506	498	503	511	516	519	515	522	530	536	537	538	538	521	521	520
10	524	533	527	524	527	533	533	532	525	510	504	506	512	516	519	523	520	528	534	521	517	486	510	522	520
11	518	518	549	510	507	513	526	515	507	508	501	506	511	514	518	522	530	528	531	534	533	545	518	526	520
12	524	541	537	530	499	506	505	506	527	506	499	492	495	502	503	506	510	514	518	517	522	524	523	523	514
13	524	524	523	524	526	526	525	523	519	510	502	499	502	509	513	521	524	535	518	526	531	522	522	525	520
14 *q*	524	524	524	525	527	528	527	526	522	514	508	505	499	505	515	520	524	530	531	533	536	536	533	528	523
15	529	529	527	528	530	532	531	527	534	520	534	529	526	537	531	530	543	539	533	545	531	519	530	525	531
16	507	497	490	512	527	526	519	509	506	506	501	497	498	502	510	517	522	526	522	505	509	530	514	518	511
17	522	522	518	515	527	523	522	522	513	504	498	499	506	507	513	518	526	525	532	532	530	522	515	513	518
18	530	518	522	523	526	528	528	526	522	511	510	507	509	515	520	522	531	533	534	534	534	533	533	518	524
19	506	506	514	519	522	528	548	539	506	495	495	502	509	510	520	507	522	529	530	522	498	495	526	506	515
20	510	510	511	514	522	518	518	523	522	515	517	518	518	526	499	523	532	534	522	530	527	524	526	539	521
21 *d*	527	519	520	520	524	526	533	532	541	511	494	478	503	499	491	505	505	507	499	511	521	514	521	499	513
22	504	510	514	514	522	526	528	514	497	511	504	503	504	504	501	504	499	524	522	522	522	521	528	523	513
23	522	517	524	527	527	523	526	529	521	502	502	491	494	497	506	513	518	525	526	528	530	531	530	528	518
24 *d*	526	524	529	537	565	555	543	555	541	522	518	518	509	479	482	499	507	506	507	510	512	513	514	511	520
25 *d*	511	507	504	504	510	520	528	525	514	502	506	494	490	492	488	486	509	510	503	517	552	518	518	531	510
26	518	516	514	526	526	530	518	514	511	506	499	498	504	508	507	509	518	522	526	529	528	526	526	527	517
27 *q*	528	529	526	526	530	529	528	526	522	511	510	509	513	520	522	524	531	533	534	534	533	532	531	530	525
28 *q*	527	530	533	533	534	534	535	538	538	527	513	507	511	515	524	527	530	530	532	532	532	532	533	532	528
29 *q*	532	533	534	535	537	538	539	536	529	518	510	507	514	522	523	527	531	533	535	534	533	533	534	531	529
30 *q*	530	526	529	530	533	537	538	538	534	523	515	514	518	518	521	529	531	532	534	536	535	532	522	518	528
Mean	521	520	522	522	526	*528*	*528*	525	520	509	502	*500*	504	508	509	514	520	524	524	527	527	524	524	524	519

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

156 ESKDALEMUIR (D) — 12° + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	-1·9	-1·8	0·2	-0·7	4·6	3·4	4·6	3·9	2·7	5·2	8·0	8·7	10·6	8·4	9·6	7·5	10·7	4·3	-1·1	1·3	-1·7	-4·7	-5·5	0·3	3·2
2	2·1	2·1	2·2	2·0	2·4	2·1	6·2	7·4	1·5	1·2	3·4	6·4	7·9	7·4	6·4	5·4	3·9	3·4	2·4	-3·4	-3·1	-1·3	0·3	2·8	3·0
3	4·1	3·1	1·5	2·0	2·0	1·9	2·1	1·9	0·5	-0·1	1·3	3·0	4·1	4·5	4·6	3·9	4·1	4·4	3·7	3·2	2·9	2·0	-0·2	1·1	2·6
4	3·7	1·1	2·3	2·5	2·7	2·4	2·0	1·1	0·2	0·1	1·9	4·2	7·3	8·6	6·9	6·4	5·3	4·2	3·8	2·7	2·7	2·3	1·2	1·3	3·2
5	2·0	1·9	1·3	1·6	1·1	1·0	1·8	1·5	0·2	-0·5	3·9	6·3	7·3	8·0	8·9	7·7	6·7	5·8	4·7	5·3	3·9	3·3	2·2	2·1	3·7
6 *d*	1·1	-0·8	1·2	1·6	0·2	0·2	0·0	2·0	3·7	2·5	1·3	4·8	6·2	10·1	12·0	10·0	9·9	7·4	4·2	3·1	1·4	0·2	-0·8	-4·1	3·2
7	-2·0	-0·1	-0·3	-1·0	0·2	1·6	0·2	-0·2	-1·6	-1·6	-0·5	2·0	4·7	5·5	6·2	5·4	5·2	4·6	4·4	3·6	2·3	1·7	1·1	1·4	1·8
8	1·7	1·5	1·5	1·7	1·5	1·4	1·1	0·5	-0·4	-0·8	0·1	3·8	4·7	7·3	5·9	5·1	4·5	4·3	4·1	2·7	2·7	2·5	1·2	-3·6	2·3
9	-5·7	-3·7	-0·6	0·0	1·6	0·7	0·6	-0·2	-0·3	0·6	3·0	7·1	8·2	9·8	8·2	6·2	5·1	3·8	3·6	3·3	3·3	2·3	-1·5	-2·5	2·2
10	1·0	2·8	1·2	0·1	0·4	1·2	1·0	0·4	0·1	0·6	2·7	4·8	6·5	6·3	6·2	6·2	5·4	5·5	5·9	-2·5	-7·4	-7·3	-2·1	1·2	1·7
11	0·6	0·3	1·9	-4·6	-0·6	0·3	-0·1	0·1	0·2	0·7	3·2	3·9	4·6	6·3	6·5	5·5	5·7	4·8	4·7	3·5	2·3	-4·2	-0·8	0·5	1·9
12	0·6	1·6	-3·6	-6·1	-0·3	-2·1	-2·0	-0·8	-0·9	-1·1	-0·5	2·0	4·8	5·8	6·4	4·8	4·1	4·5	-0·4	-3·1	1·5	1·6	0·8	1·1	0·8
13	1·4	0·9	1·5	1·8	2·0	1·2	1·5	0·7	0·4	0·2	0·7	2·8	5·1	5·9	6·0	5·5	4·7	4·8	4·3	3·1	2·8	0·1	-0·3	2·6	2·5
14 *q*	1·1	1·2	1·2	1·4	1·5	1·1	0·6	0·5	0·3	0·0	1·5	4·7	6·4	5·8	6·0	5·4	4·7	4·1	3·7	3·3	3·2	1·6	1·5	1·3	2·6
15	1·9	1·8	1·2	1·4	1·2	1·0	0·8	-0·2	0·1	1·4	1·8	4·1	5·1	8·0	7·5	9·0	8·2	12·3	8·9	9·7	5·4	2·0	0·0	-4·4	3·7
16	-10·3	-6·1	-2·8	-1·8	0·1	-0·6	0·1	0·1	1·1	0·5	2·3	3·7	6·4	6·2	5·4	4·8	4·5	4·5	3·9	-0·5	1·5	-6·2	-1·0	0·7	0·7
17	0·7	1·0	0·5	4·1	1·4	0·5	0·4	0·1	-0·2	0·1	1·1	3·7	5·1	5·7	5·6	4·8	3·7	3·6	3·2	2·7	3·3	-1·9	-3·4	-0·8	1·9
18	-1·7	-0·8	1·0	0·8	1·6	1·5	0·8	0·5	0·5	0·4	0·9	3·1	4·8	5·6	5·9	4·7	3·9	3·6	3·0	2·7	2·1	1·9	1·6	-2·5	1·9
19	-9·3	-5·5	-2·7	-0·3	-1·5	-0·8	0·2	2·1	0·5	2·5	1·7	2·3	4·5	6·3	7·3	5·1	2·8	3·0	4·2	5·9	1·1	-2·4	-10·8	-5·2	*0·5*
20	-5·2	-0·8	-0·5	-1·7	2·1	2·0	0·1	0·2	0·3	1·0	2·4	4·5	5·0	7·3	7·5	5·4	5·2	4·0	4·6	3·8	2·8	2·8	1·8	1·2	2·4
21 *d*	-0·4	0·9	-0·4	-0·3	-0·3	0·1	-0·4	0·5	0·6	0·3	3·5	8·7	10·7	12·3	3·8	5·0	3·5	2·4	-1·3	0·6	1·9	-0·6	-11·8	-9·5	1·2
22	-2·6	0·7	1·7	4·3	2·1	3·6	2·9	2·4	3·0	2·8	3·2	4·6	4·4	5·5	3·8	4·1	-3·5	-0·6	2·6	1·9	0·3	0·8	0·6	0·3	2·0
23	0·7	5·2	2·0	2·1	1·5	1·6	3·0	1·8	0·9	0·8	3·0	5·1	6·4	7·4	6·5	5·5	4·5	3·7	2·7	2·3	1·9	1·5	1·2	1·1	3·0
24 *d*	0·5	0·5	1·9	3·3	3·8	2·9	4·0	9·0	5·3	2·1	2·9	7·2	10·3	9·9	8·3	6·2	3·4	2·9	2·0	1·6	1·0	0·6	0·4	0·4	*3·8*
25 *d*	0·7	0·7	0·5	1·7	1·2	0·3	0·9	1·5	0·7	3·3	4·1	5·7	7·0	7·3	5·7	-2·6	3·5	2·8	2·5	-2·8	-3·0	-0·3	-3·0	-4·1	1·4
26	-1·5	-0·7	1·2	4·7	0·0	0·9	1·0	0·2	-0·4	-0·1	1·0	3·3	6·4	6·0	5·0	4·6	-1·0	3·2	3·3	2·5	2·0	1·2	1·0	0·9	1·9
27 *q*	1·0	1·1	1·1	1·9	1·7	1·4	1·1	1·2	1·2	0·5	1·8	3·8	5·3	5·2	5·1	4·5	3·7	3·1	2·9	2·3	2·1	1·5	1·1	1·0	2·3
28 *q*	1·0	1·6	1·7	2·6	2·0	1·5	1·6	1·8	2·0	1·0	1·9	3·3	5·6	5·3	5·5	4·7	3·6	2·8	2·7	2·1	1·9	1·4	1·3	1·4	2·5
29 *q*	1·6	2·0	2·0	2·3	2·3	1·9	1·1	0·9	0·1	0·7	1·1	3·0	5·0	5·4	4·3	3·4	3·1	2·9	2·8	2·4	2·3	1·6	1·1	0·3	2·2
30 *q*	-1·6	0·2	1·0	1·8	1·9	1·8	1·1	1·0	0·9	0·1	1·1	2·7	4·6	4·7	4·2	3·8	3·2	3·0	2·8	2·0	2·3	-1·8	-2·4	-2·6	1·5
Mean	-0·5	0·4	0·7	1·0	1·3	1·2	1·3	1·4	0·8	0·8	2·1	4·4	6·2	*6·9*	6·4	5·3	4·4	4·1	3·3	2·2	1·5	0·1	*-0·8*	-0·5	2·3

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

157 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	1140	1128	1112	1111	1118	1119	1128	1136	1142	1141	1143	1153	1167	1177	1184	1201	1227	1222	1189	1173	1171	1141	1130	1135	*1154*
2	1137	1142	1145	1146	1146	1144	1143	1135	1137	1136	1136	1141	1147	1151	1153	1151	1149	1149	1149	1150	1147	1142	1141	1137	1144
3	1128	1124	1131	1137	1140	1141	1141	1142	1144	1142	1140	1140	1138	1142	1142	1143	1144	1142	1142	1142	1143	1143	1143	1143	1140
4	1137	1138	1141	1141	1141	1141	1142	1143	1147	1145	1142	1142	1140	1144	1144	1143	1144	1144	1144	1144	1144	1146	1146	1144	1143
5	1143	1142	1142	1142	1140	1137	1136	1136	1138	1138	1133	1131	1131	1135	1136	1137	1137	1136	1136	1135	1137	1137	1140	1141	1137
6 *d*	1142	1143	1142	1141	1137	1136	1136	1135	1135	1141	1144	1143	1141	1144	1161	1173	1171	1185	1166	1159	1155	1154	1153	1142	1149
7	1129	1135	1137	1137	1129	1130	1135	1140	1146	1146	1143	1142	1142	1141	1142	1146	1148	1146	1143	1143	1142	1142	1142	1142	1140
8	1142	1142	1142	1141	1140	1137	1137	1136	1137	1140	1134	1131	1134	1135	1136	1137	1138	1138	1138	1143	1142	1143	1146	1148	1139
9	1146	1140	1137	1141	1142	1143	1141	1140	1141	1140	1139	1135	1136	1137	1137	1140	1142	1140	1138	1137	1137	1141	1153	1153	1141
10	1148	1141	1129	1136	1136	1136	1136	1136	1141	1142	1142	1142	1143	1143	1143	1143	1143	1142	1142	1153	1148	1158	1153	1146	1143
11	1145	1143	1126	1101	1119	1134	1135	1137	1140	1140	1139	1139	1137	1137	1141	1142	1142	1142	1141	1142	1146	1144	1141	1143	1137
12	1143	1141	1125	1105	1108	1113	1128	1135	1142	1142	1142	1140	1141	1142	1147	1149	1150	1151	1154	1154	1149	1143	1143	1142	1139
13	1141	1141	1142	1142	1142	1141	1141	1141	1142	1142	1142	1140	1140	1142	1142	1143	1144	1143	1146	1147	1144	1147	1146	1140	1143
14 *q*	1138	1141	1141	1142	1142	1141	1140	1139	1141	1140	1136	1135	1142	1141	1142	1143	1144	1143	1143	1142	1142	1141	1141	1141	1141
15	1140	1140	1140	1140	1140	1139	1137	1137	1136	1133	1129	1128	1129	1126	1131	1141	1142	1148	1162	1165	1183	1186	1173	1165	1145
16	1160	1155	1139	1130	1132	1137	1139	1142	1146	1142	1141	1141	1142	1143	1142	1143	1145	1144	1148	1158	1155	1137	1136	1137	1143
17	1140	1141	1141	1137	1136	1141	1142	1143	1148	1149	1147	1146	1143	1141	1141	1141	1142	1141	1141	1141	1142	1148	1146	1142	1143
18	1130	1131	1136	1137	1137	1138	1137	1137	1141	1142	1140	1136	1135	1136	1141	1141	1141	1141	1140	1140	1140	1141	1141	1144	1138
19	1148	1140	1130	1131	1136	1135	1129	1129	1136	1137	1138	1141	1142	1142	1146	1148	1149	1148	1148	1155	1172	1173	1150	1136	1143
20	1137	1142	1143	1142	1134	1126	1134	1137	1138	1140	1138	1137	1138	1144	1148	1142	1138	1138	1147	1147	1146	1149	1148	1142	1141
21 *d*	1139	1137	1137	1138	1136	1136	1135	1135	1135	1140	1139	1143	1144	1153	1179	1174	1164	1160	1160	1156	1149	1148	1142	1126	1146
22	1119	1114	1123	1122	1125	1128	1128	1131	1133	1135	1139	1144	1147	1153	1156	1156	1165	1160	1152	1149	1148	1147	1142	1136	1140
23	1136	1135	1131	1136	1136	1137	1136	1136	1137	1137	1135	1141	1147	1149	1154	1154	1153	1149	1147	1144	1143	1142	1142	1142	1142
24 *d*	1142	1142	1140	1135	1125	1124	1125	1122	1122	1126	1129	1132	1146	1165	1168	1167	1165	1159	1154	1153	1152	1148	1148	1148	1143
25 *d*	1148	1148	1148	1147	1146	1142	1142	1138	1142	1140	1138	1139	1142	1152	1158	1174	1162	1160	1165	1159	1141	1142	1144	1125	1148
26	1126	1135	1131	1110	1120	1127	1134	1135	1135	1134	1129	1129	1131	1135	1138	1145	1150	1148	1146	1143	1142	1142	1142	1142	*1135*
27 *q*	1141	1140	1140	1140	1139	1138	1138	1137	1139	1140	1137	1135	1136	1136	1137	1141	1142	1142	1140	1140	1138	1138	1139	1140	1139
28 *q*	1140	1139	1137	1137	1137	1137	1137	1136	1135	1136	1135	1134	1135	1137	1140	1141	1141	1141	1141	1140	1139	1138	1137	1136	1138
29 *q*	1136	1136	1136	1136	1136	1136	1136	1136	1137	1137	1136	1135	1136	1137	1141	1141	1140	1140	1138	1138	1137	1136	1136	1136	1137
30 *q*	1136	1135	1135	1135	1136	1136	1136	1135	1135	1140	1139	1140	1137	1136	1137	1141	1142	1141	1141	1141	1139	1140	1138	1139	1138
Mean	1139	1138	1136	*1134*	1134	1135	1136	1137	1139	1139	1138	1139	1140	1143	1147	1149	*1150*	1149	1148	1148	1147	1146	1144	1141	1142

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

158 ESKDALEMUIR — NOVEMBER

	TERRESTRIAL MAGENTIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force						
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +		Minimum 12° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	05 35	537	435	10 20	102	16 19	15·5	−17·2	22 02	*32·7*	16 33	*1234*	1105	02 50	*129*	3,3,3,3,3,4,3,4	26	1	83·8
2	05 36) 19 11)	534	478	12 51	56	07 04	12·0	−4·6	19 59	16·6	20 10	1154	1131	07 30	23	1,2,3,2,2,1,3,3	17	1	83·8
3	06 39	535	502	11 12	33	00 01	7·2	−1·1	22 40	8·3	15 52	1147	1123	01 20	24	2,1,2,0,1,1,1,2	10	0	83·6
4	00 34	539	481	11 12	58	13 26	9·4	−0·7	09 26	10·1	08 40	1149	1135	00 50	14	2,0,1,2,1,2,1,2	11	0	83·8
5	19 01	570	467	09 24	103	12 13	13·2	−9·1	09 25	22·3	01 00	1143	1128	11 30	15	0,2,2,4,3,3,3,2	19	1	83·7
6 *d*	23 39	563	460	14 26	103	14 48	17·0	−8·8	23 44	25·8	17 33	1195	1124	24 00	71	2,2,2,3,3,3,2,4	21	1	83·7
7	04 33	540	486	11 30	54	14 49	7·3	−5·1	00 34	12·4	16 31	1149	1122	00 15	27	3,2,1,1,2,1,1,1	12	1	83·7
8	20 20	537	493	12 11	44	13 34	9·0	−7·0	24 00	16·0	23 33	1150	1129	11 10	21	0,0,0,2,2,1,2,3	10	0	83·7
9	19 21	544	492	10 00	52	13 29	10·9	−7·5	00 14	18·4	22 45	1156	1135	11 42	21	3,1,1,2,2,2,1,3	15	1	83·7
10	20 05	560	480	20 51	80	13 56	9·2	−10·3	19 59	19·5	19 46	1159	1125	02 28	34	3,2,1,1,2,2,4,3	18	1	83·6
11	02 46	564	489	11 18	75	14 09	7·4	−9·1	21 08	16·5	21 02	1153	*1095*	03 22	58	3,3,2,3,2,2,3,3	21	1	83·6
12	01 41	564	462	04 35	102	04 46	9·1	−9·3	02 58	18·4	19 01	1156	*1095*	03 43	61	4,4,3,2,2,3,3,1	22	1	83·6
13	17 42	542	494	12 17	48	13 58	7·2	−2·8	22 02	10·0	22 10	1149	1137	12 00	12	1,1,1,1,2,2,2,3	13	0	83·6
14 *q*	21 34	543	494	12 31	49	12 20	7·2	−0·7	21 31	7·9	16 10	1146	1134	11 10	12	0,0,0,2,2,1,1,2	8	0	83·6
15	13 37	562	486	07 59	76	17 49	12·7	−11·5	24 00	24·2	21 04	1195	1123	13 10	72	0,0,4,3,3,3,3,4	20	1	83·4
16	21 10	553	482	01 11	71	13 14	9·0	−12·4	00 43	21·4	00 01	1165	1129	03 55	36	3,3,3,2,2,2,3,3	21	1	83·4
17	21 52	544	497	10 39	47	13 10	6·3	−5·7	22 06	12·0	21 40	1153	1131	04 06	22	1,2,1,1,1,2,1,3	12	1	83·3
18	00 12	543	502	23 57	41	12 59	7·4	−5·2	23 54	12·6	23 59	1149	1125	00 46	24	2,1,0,1,1,2,0,3	10	0	83·3
19	22 32	573	478	22 00	95	14 30	8·8	*−18·8*	22 30	27·6	20 43	1183	1129	07 40	54	3,2,3,2,2,3,3,4	22	1	83·2
20	17 52	557	493	14 15	64	13 44	9·1	−7·4	00 12	16·5	18 51	1154	1123	05 10	31	3,3,2,2,3,3,3,3	22	1	83·2
21 *d*	08 54	551	456	11 10	95	13 47	13·8	−17·5	22 39	31·3	14 32	1184	1123	23 50	61	3,2,3,4,4,2,3,3	24	1	83·2
22	22 21	538	480	08 53	58	03 00	7·2	−9·3	16 50	16·5	16 41	1169	1112	01 10	57	3,3,3,2,2,4,1,2	20	1	83·2
23	21 00	534	486	11 28	48	13 59	9·1	0·1	09 01	9·0	14 14	1155	1129	02 05	26	3,2,2,2,1,1,1,0	12	0	83·2
24 *d*	04 40	574	*412*	13 46	*162*	13 15	*23·4*	−1·7	10 11	25·1	13 43	1172	1117	07 35	55	1,3,3,3,5,3,2,1	21	1	83·3
25 *d*	20 24	*610*	459	15 21	151	14 00	8·9	−15·0	20 18	23·9	15 44	1179	1118	23 35	61	1,3,2,3,2,4,5,3	23	1	83·3
26	03 16	537	497	11 24	40	12 51	9·0	−3·6	00 01	12·6	16 41	1152	1106	03 33	46	3,3,2,1,2,3,1,0	15	1	83·3
27 *q*	18 10	535	506	11 38	29	13 12	5·4	0·1	09 43	*5·3*	16 01	1143	1135	12 10	*8*	1,0,0,1,0,1,0,0	3	0	83·4
28 *q*	07 03	544	506	11 24	38	12 52	6·1	0·8	06 58	*5·3*	16 00	1142	1132	12 02	10	1,0,2,2,2,1,1,1	10	0	83·4
29 *q*	05 55	541	506	11 27	35	13 28	5·7	−0·3	09 00	6·0	15 00	1143	1135	11 20	*8*	1,0,0,0,1,0,0,1	3	0	83·4
30 *q*	06 50	538	513	11 11	*25*	12 39	7·3	−3·6	22 50	10·9	16 10	1143	1134	13 25	9	1,0,0,0,2,0,0,2	5	0	83·3
Mean	– –	550	482	– –	68	– –	9·7	−6·8	– –	16·5	– –	1161	1124	– –	37	–	–	0·63	83·5

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

159 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	522	525	528	533	534	533	532	534	527	517	511	513	517	521	525	526	529	511	509	508	517	522	524	524	523
2	525	529	532	535	533	535	535	529	528	521	513	510	513	511	505	507	518	524	521	523	524	524	526	529	523
3	515	516	542	532	523	537	530	529	526	510	494	494	497	501	504	508	521	526	529	528	525	525	525	526	519
4	525	526	525	525	531	535	536	527	525	519	513	513	513	521	525	525	531	528	543	544	541	537	536	537	529
5 *d*	537	536	531	528	537	541	536	531	527	528	517	509	510	525	532	537	517	524	532	537	530	517	511	526	527
6	531	525	524	522	521	525	523	524	521	514	510	511	517	527	527	529	533	534	537	533	530	521	516	517	524
7	521	528	526	549	553	546	541	534	524	517	514	515	519	521	522	527	502	506	517	527	527	529	527	525	526
8	527	525	529	529	553	535	530	529	526	517	509	513	523	522	523	525	532	537	538	537	532	531	532	529	528
9 *q*	533	527	529	529	529	530	531	530	532	529	524	522	525	527	525	528	529	532	538	540	533	533	532	533	530
10 *d*	530	526	529	530	531	537	540	538	536	526	521	516	517	524	523	508	529	539	539	540	529	525	536	533	529
11 *d*	529	529	529	533	534	536	536	537	536	526	517	518	514	513	511	517	514	525	529	533	487	528	502	519	523
12 *d*	517	536	517	515	517	523	525	527	529	522	517	489	480	499	506	497	518	517	521	524	521	525	525	534	517
13	521	525	525	527	529	531	530	529	525	525	517	509	510	513	509	514	521	525	529	533	532	529	530	529	524
14 *q*	529	527	528	528	527	529	527	524	523	517	517	513	517	521	525	526	530	533	536	537	537	536	533	532	527
15 *q*	529	531	530	531	532	533	536	532	529	520	509	503	508	519	525	529	534	537	538	538	538	537	535	534	529
16	535	532	531	532	533	534	534	531	531	529	523	524	527	532	533	537	538	541	544	544	545	532	529	526	*533*
17	525	528	526	529	530	545	545	537	524	513	505	498	498	503	513	525	529	532	531	529	519	521	536	527	524
18	530	527	531	536	532	533	531	533	534	529	524	529	529	533	529	534	540	543	544	543	534	536	534	534	*533*
19 *d*	536	533	546	541	541	551	556	532	509	499	513	502	473	473	504	510	505	521	478	492	505	511	511	511	515
20 *q*	510	511	516	513	513	509	510	506	500	493	493	491	490	501	502	508	516	521	521	522	523	522	523	522	*510*
21	521	524	525	525	528	532	527	527	520	470	513	506	509	511	506	517	522	525	525	526	528	528	534	524	520
22	515	523	523	523	523	527	540	525	516	501	504	501	493	493	508	519	521	526	525	523	525	526	529	528	518
23	527	526	527	529	528	538	537	535	538	529	518	509	502	513	522	529	527	530	529	529	529	527	535	523	527
24	518	506	511	513	517	525	525	524	526	524	522	517	517	522	513	521	524	529	532	533	534	529	529	527	522
25	525	523	529	525	527	528	529	529	529	526	521	519	519	520	521	525	529	533	536	541	536	533	501	521	526
26	524	525	525	532	534	532	529	525	523	519	522	502	492	501	505	506	506	508	501	500	506	502	508	509	514
27	509	513	519	517	522	532	529	529	512	506	508	505	509	513	517	517	516	519	512	522	511	512	500	518	515
28	513	521	523	517	520	521	529	529	517	520	517	512	513	505	509	512	517	521	523	525	525	525	525	526	519
29	529	527	525	533	534	538	534	528	518	515	511	509	509	507	510	517	520	525	523	523	527	525	523	526	522
30 *q*	525	528	526	529	530	531	529	529	525	521	517	518	521	526	529	529	529	532	536	536	537	534	534	535	529
31	534	537	542	539	538	541	541	540	535	529	525	526	525	525	518	519	526	529	532	533	530	533	534	537	532
Mean	525	526	527	528	530	*533*	*533*	529	525	517	514	*510*	*510*	514	517	520	523	527	527	529	526	526	525	527	524

536 at 0-1h. January 1, 1947.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

160 ESKDALEMUIR (D) — 12° + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	-0·7	-1·2	-0·6	0·0	0·2	0·9	0·9	0·7	0·3	0·1	1·0	2·6	3·6	4·4	4·6	3·8	3·1	2·8	3·5	1·1	1·2	0·2	-0·4	-6·0	1·1
2	-2·6	0·3	1·1	2·1	2·5	2·6	2·4	1·1	0·7	0·0	1·1	2·8	4·6	6·0	6·6	6·7	4·6	2·9	3·7	0·6	1·5	-0·3	-2·7	-9·3	1·6
3	-7·7	-5·9	-0·3	-1·7	2·3	3·7	1·5	1·2	0·7	0·7	2·0	4·4	4·4	5·1	4·1	2·5	1·9	2·0	1·9	1·5	0·6	0·3	1·0	1·0	1·1
4	1·2	1·6	1·7	1·8	1·1	0·3	0·6	1·5	1·0	0·7	2·0	3·6	4·6	4·5	3·7	3·5	2·9	2·6	2·5	2·2	2·0	1·5	1·8	1·7	2·1
5 *d*	1·9	1·5	0·8	1·3	1·2	0·8	0·0	0·0	0·5	0·8	2·2	4·5	6·2	5·7	6·5	7·7	5·6	7·5	2·9	2·7	2·2	0·5	1·4	0·0	2·6
6	1·9	0·2	-0·2	-0·8	-1·8	-0·9	-0·7	0·0	-0·1	-0·2	2·0	3·8	5·1	5·6	5·1	3·7	2·9	2·2	2·0	1·9	1·0	0·0	-3·1	-0·4	1·2
7	0·2	1·8	-1·7	-3·5	-1·0	-2·5	0·8	0·2	-1·8	-0·7	1·0	3·4	4·8	4·9	4·0	4·6	2·9	2·4	4·5	2·5	1·0	0·1	-2·8	-1·6	1·0
8	-1·5	-0·7	1·2	2·7	3·3	0·5	0·7	0·4	0·0	1·0	1·1	1·9	3·6	4·8	4·6	3·9	3·6	3·2	2·5	2·7	2·0	0·6	0·1	0·0	1·8
9 *q*	-1·7	-0·6	0·1	0·6	1·7	1·4	0·7	0·2	-0·3	-0·4	1·0	3·3	3·9	3·9	3·8	4·1	4·3	4·3	3·2	2·7	0·1	1·4	0·2	-0·4	1·6
10 *d*	-2·5	-2·1	0·2	1·1	1·9	1·4	1·0	0·7	0·6	0·1	1·0	3·8	4·1	6·0	5·5	0·3	5·1	4·7	2·8	2·7	1·2	-3·3	-7·6	-2·9	1·1
11 *d*	0·3	0·7	1·8	1·9	1·9	1·1	1·1	0·8	0·7	0·1	0·0	2·9	3·5	4·6	5·4	5·9	5·6	1·9	2·6	-7·5	-2·6	-5·1	-3·8	-1·3	0·9
12 *d*	-2·5	-0·7	-1·6	0·4	1·9	1·5	1·0	1·0	0·9	0·1	2·7	3·8	7·4	7·3	6·9	2·6	0·6	3·0	3·0	-0·6	1·9	0·7	-1·5	-5·2	1·4
13	-2·4	0·8	0·6	1·1	1·4	0·5	1·7	1·1	1·2	0·9	1·3	4·4	4·6	6·4	5·1	4·6	4·6	4·2	2·3	1·9	0·8	0·9	0·5	0·6	2·0
14 *q*	0·5	0·5	0·7	0·8	0·9	0·8	1·0	0·2	0·1	0·2	1·5	3·1	4·6	5·3	4·8	4·2	3·6	2·6	2·2	1·9	1·6	1·3	0·9	0·5	1·8
15 *q*	0·4	0·2	0·5	0·6	0·7	0·9	0·7	0·5	0·1	0·1	0·7	3·8	6·3	6·5	5·5	4·4	3·6	3·4	2·9	2·5	2·4	1·9	2·0	1·1	2·2
16	0·8	0·5	-0·5	0·4	0·5	0·8	0·4	0·8	0·7	1·1	2·0	4·6	5·6	4·6	4·6	4·6	3·8	3·1	2·8	3·3	3·8	2·9	-1·9	-4·5	1·9
17	-2·2	-0·9	-0·9	-0·8	-0·3	-0·7	0·3	0·5	0·3	1·5	2·6	5·0	5·9	6·3	5·6	4·5	3·3	2·3	2·3	2·3	0·9	0·2	-2·5	0·0	1·5
18	-0·3	-0·7	1·7	-1·6	-2·8	-1·3	-0·6	0·9	0·4	-0·4	0·9	3·2	5·6	8·1	6·3	5·5	3·9	3·1	2·4	2·1	1·1	1·1	1·2	1·5	1·7
19 *d*	1·5	2·4	3·6	2·0	1·5	3·2	3·5	6·3	7·1	6·9	8·3	8·8	10·0	10·9	11·9	10·8	7·7	-3·1	0·2	-0·9	-0·6	0·1	0·3	0·8	*4·3*
20 *q*	0·9	1·0	2·4	4·8	2·0	0·2	-0·8	-1·7	-1·9	-2·6	-1·7	-0·6	1·1	1·8	1·9	1·7	1·1	1·1	1·4	1·4	1·5	2·0	1·3	1·6	0·8
21	2·0	1·6	1·5	1·9	1·4	0·2	-0·3	-0·3	0·8	2·4	6·4	4·5	6·5	6·3	6·2	4·9	4·1	2·3	1·1	1·0	0·8	0·4	-1·7	-0·9	2·2
22	-1·8	-3·1	-3·5	-0·5	-0·5	0·2	4·4	1·9	0·9	0·7	2·1	4·5	6·3	7·3	5·0	3·9	1·9	0·2	2·5	1·5	1·0	0·8	0·2	0·1	1·5
23	1·0	1·0	1·1	0·9	0·8	0·7	0·5	0·2	-0·2	-1·2	-0·6	2·9	4·7	5·5	6·0	6·5	5·3	3·7	3·7	2·1	1·5	-0·1	-1·0	-1·3	1·8
24	-2·4	-4·5	-2·3	-1·9	-2·0	-0·9	-0·1	-0·2	0·0	0·0	1·5	2·4	4·2	5·2	5·1	3·6	2·3	1·9	1·6	1·1	1·0	0·7	0·7	0·7	0·7
25	0·7	-0·2	-2·1	-1·6	-0·6	-0·3	-0·4	-0·6	-0·3	-0·9	0·0	1·3	2·8	4·6	4·9	3·5	2·8	2·7	2·5	3·5	2·0	2·8	-3·4	-2·6	0·9
26	0·8	0·3	2·4	3·1	1·9	1·5	1·1	1·1	2·1	2·3	1·1	3·4	5·6	5·5	6·2	6·5	7·8	5·2	5·4	2·0	0·3	-1·0	-1·3	-2·0	2·6
27	-1·9	-1·3	-3·3	-5·0	-0·8	1·5	4·1	1·1	1·3	1·9	1·8	3·7	3·7	3·6	3·7	3·5	2·7	2·8	-0·7	-3·6	-0·8	-2·8	-4·3	-0·9	*0·4*
28	-3·1	1·0	-2·6	-2·2	-0·6	-0·1	0·1	0·3	-0·2	0·1	0·9	3·2	3·7	4·2	5·4	4·3	3·2	2·6	2·8	1·6	0·5	-0·5	-0·6	-0·1	1·0
29	0·1	0·0	1·5	2·2	1·1	-0·3	0·1	0·5	-0·3	-0·3	0·6	2·9	4·3	5·3	5·4	3·9	0·1	2·0	1·6	1·5	0·4	-0·8	0·1	-0·3	1·3
30 *q*	0·3	0·5	0·9	0·9	1·1	0·8	0·2	0·1	0·0	0·1	0·8	1·5	2·5	3·7	3·7	3·0	2·1	2·0	2·0	1·8	1·5	1·1	0·9	0·5	1·3
31	1·1	2·0	0·3	0·0	0·6	0·5	0·2	0·1	0·0	0·1	0·7	2·3	1·8	4·5	5·3	4·3	3·6	2·3	2·0	1·8	1·0	-1·7	0·2	0·3	1·4
Mean	-0·6	-0·1	0·1	0·3	0·7	0·6	0·8	0·7	0·5	0·5	1·5	3·4	4·7	*5·4*	5·3	4·4	3·6	2·7	2·5	1·3	1·1	0·2	-0·9	-0·9	1·6

1·1 at 0-1h. January 1, 1947.

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

161 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1138	1136	1135	1135	1134	1134	1135	1135	1135	1136	1135	1135	1134	1132	1135	1136	1141	1147	1153	1159	1154	1147	1141	1135	1139
2	1131	1130	1130	1129	1130	1131	1134	1136	1137	1138	1134	1131	1131	1135	1141	1144	1144	1144	1146	1148	1144	1144	1141	1133	1137
3	1129	1126	1105	1101	1113	1117	1125	1130	1135	1138	1141	1142	1146	1144	1147	1148	1146	1142	1142	1141	1142	1141	1140	1138	1134
4	1137	1136	1136	1135	1133	1135	1135	1135	1136	1136	1136	1136	1137	1138	1141	1141	1140	1138	1137	1136	1137	1137	1137	1136	1137
5 *d*	1135	1135	1136	1135	1132	1132	1134	1134	1135	1134	1134	1134	1135	1135	1136	1141	1150	1152	1149	1148	1152	1158	1161	1153	1141
6	1145	1143	1141	1137	1135	1135	1136	1137	1139	1142	1141	1142	1141	1138	1140	1141	1140	1140	1140	1140	1142	1146	1148	1146	1141
7	1143	1141	1138	1123	1112	1108	1113	1118	1126	1127	1128	1129	1130	1131	1136	1140	1147	1152	1148	1146	1143	1142	1142	1142	1134
8	1138	1137	1134	1126	1111	1117	1124	1129	1133	1132	1133	1130	1129	1132	1136	1137	1137	1137	1136	1137	1138	1141	1142	1142	1133
9 *q*	1141	1138	1136	1136	1136	1136	1135	1135	1132	1129	1126	1129	1134	1135	1138	1141	1141	1140	1138	1137	1141	1139	1140	1141	1136
10 *d*	1141	1141	1138	1137	1136	1135	1133	1131	1130	1131	1130	1129	1130	1131	1140	1154	1147	1140	1138	1138	1141	1147	1140	1133	1137
11 *d*	1135	1135	1135	1135	1135	1135	1135	1132	1130	1130	1131	1130	1133	1136	1143	1146	1149	1151	1149	1149	1153	1130	1129	1135	1138
12 *d*	1138	1129	1129	1135	1137	1138	1137	1136	1137	1138	1136	1136	1139	1143	1153	1167	1166	1158	1153	1152	1150	1148	1147	1142	1143
13	1138	1137	1137	1138	1138	1137	1137	1136	1137	1137	1136	1134	1130	1133	1142	1147	1145	1144	1144	1143	1141	1138	1137	1137	1138
14 *q*	1136	1137	1137	1137	1137	1136	1136	1136	1136	1134	1131	1134	1131	1129	1132	1135	1137	1137	1137	1137	1136	1136	1136	1136	1135
15 *q*	1136	1136	1136	1136	1136	1136	1136	1136	1137	1138	1139	1137	1136	1134	1135	1136	1138	1138	1138	1138	1138	1137	1136	1136	1137
16	1136	1136	1136	1135	1135	1135	1135	1135	1133	1130	1130	1130	1130	1130	1133	1135	1136	1136	1136	1136	1138	1143	1147	1147	1136
17	1143	1139	1137	1136	1135	1131	1129	1130	1131	1135	1136	1136	1136	1138	1142	1142	1142	1142	1142	1143	1147	1146	1139	1136	1138
18	1136	1136	1131	1125	1129	1130	1130	1131	1134	1131	1126	1123	1123	1124	1129	1131	1132	1133	1133	1134	1135	1135	1135	1135	*1131*
19 *d*	1134	1132	1128	1126	1128	1123	1118	1118	1123	1124	1126	1131	1143	1159	1162	1169	1189	1177	1171	1168	1157	1149	1147	1145	1144
20 *q*	1144	1145	1143	1141	1141	1142	1142	1143	1147	1146	1145	1147	1147	1145	1144	1146	1145	1143	1143	1143	1142	1142	1142	1143	1144
21	1143	1142	1142	1142	1141	1138	1138	1136	1137	1144	1137	1140	1145	1147	1147	1149	1149	1148	1147	1147	1144	1143	1142	1141	1143
22	1143	1143	1141	1138	1138	1136	1129	1129	1136	1143	1141	1141	1144	1149	1148	1148	1150	1149	1144	1145	1144	1143	1142	1141	1142
23	1141	1138	1138	1137	1136	1135	1135	1135	1134	1133	1130	1129	1135	1137	1137	1141	1143	1144	1144	1145	1146	1143	1141	1138	1138
24	1141	1142	1140	1141	1139	1136	1137	1138	1138	1140	1137	1136	1135	1135	1138	1142	1142	1141	1141	1141	1141	1141	1141	1141	1139
25	1141	1142	1142	1141	1140	1137	1137	1136	1135	1134	1131	1131	1130	1129	1134	1138	1141	1141	1140	1140	1145	1153	1169	1164	1140
26	1154	1150	1144	1136	1132	1132	1135	1136	1134	1130	1131	1135	1141	1144	1153	1167	1172	1172	1174	1177	1168	1164	1158	1153	*1150*
27	1149	1143	1136	1130	1129	1128	1126	1127	1133	1135	1136	1136	1135	1137	1139	1143	1147	1147	1152	1155	1153	1152	1154	1143	1140
28	1136	1118	1123	1129	1136	1139	1138	1137	1141	1139	1138	1140	1140	1142	1144	1149	1150	1151	1149	1148	1147	1143	1143	1142	1140
29	1138	1135	1134	1131	1135	1137	1137	1137	1137	1137	1136	1135	1135	1135	1136	1143	1148	1146	1146	1146	1144	1143	1142	1138	1139
30 *q*	1137	1137	1139	1140	1139	1137	1138	1138	1140	1136	1136	1133	1129	1128	1131	1138	1141	1141	1140	1138	1138	1137	1136	1136	1137
31	1136	1134	1129	1130	1130	1130	1131	1131	1135	1135	1133	1129	1127	1129	1135	1138	1140	1140	1140	1140	1140	1141	1137	1136	1134
Mean	1139	1137	1135	1133	1133	*1133*	1133	1133	1135	1135	1134	1134	1135	1137	1140	1144	*1146*	1145	1145	1145	1145	1143	1143	1141	1139

1134 at 0-1h. January 1, 1947.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

162 ESKDALEMUIR — DECEMBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 12° +	Minimum 12° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m.	′	′ h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	04 29	537	501	19 10	36	14 52	5·5	−9·5 23 43	15·0	19 40	1160	1131	13 40	29	1,0,0,0,1,2,2,3	9	0	83·3
2	23 21	540	497	15 01	43	14 35	7·2	−11·2 23 29	18·4	19 20	1149	1129	03 20	20	3,0,1,0,2,2,1,3	12	1	83·2
3	02 26	570	489	11 21	81	13 20	5·4	−10·8 00 08	16·2	15 10	1149	*1060*	02 42	89	4,3,1,2,1,2 0,0	13	1	83·2
4	19 30	549	510	11 43	39	12 16	5·7	−0·2 06 04	5·9	15 00	1143	1132	04 30	11	0,1,1,0,1,2,2,2	9	0	83·2
5 *d*	05 32	545	495	22 19	50	17 15	10·4	−2·7 22 27	13·1	22 25	1163	1130	11 15	33	1,2,1,3,3,3,3,3	19	1	83·2
6	18 49	543	506	10 57	37	13 52	7·7	−3·9 22 21	11·6	23 05	1149	1135	04 50	14	2,2,1,1,1,1,2,2	12	0	83·2
7	03 28	562	497	16 43	65	12 36	6·4	−5·2 03 43	11·6	17 23	1153	1106	05 10	47	2,3,2,1,1,3,2,2	16	1	83·1
8	04 25	565	505	11 20	60	04 05	7·4	−2·5 00 39	9·9	22 10	1143	1105	04 28	38	2,3,1,2,1,1,0,0	10	1	83·0
9 *q*	20 47	552	520	11 06	32	12 14	5·4	−2·5 20 34	7·9	20 30	1143	1125	10 45	18	1,1,1,1,0,1,3,1	9	0	83·0
10 *d*	22 58	549	494	15 16	55	14 17	7·3	−10·3 22 52	17·6	15 42	1159	1128	11 10	31	1,0,1,3,2,3,2,3	15	1	83·0
11 *d*	21 03	*573*	469	20 26	104	15 33	7·3	−13·6 19 24	20·9	19 04	1158	1125	22 18	33	1,1,1,2,2,2,4,4	17	1	82·8
12 *d*	23 36	557	462	12 12	95	14 07	10·2	−9·4 23 31	19·6	15 49	1176	1123	01 44	53	3,1,1,3,3,3,2,3	19	1	82·8
13	06 53	537	500	14 40	37	13 29	7·3	−3·4 00 04	10·7	15 30	1149	1129	12 30	20	2,1,2,2,2,2,1,0	12	0	82·8
14 *q*	21 14	538	512	11 14	26	14 10	5·5	−0·1 07 58	*5·6*	17 05	1139	1128	13 40	11	0,0,0,0,0,0,0,0	0	0	82·6
15 *q*	18 24	540	501	11 51	39	12 42	6·9	−0·3 09 57	7·2	10 40	1141	1131	13 52	10	0,0,0,1,2,1,0,0	4	0	82·6
16	20 13	549	511	24 00	38	12 19	6·5	−5·9 23 18	12·4	22 40	1149	1129	11 40	20	1,0,1,0,1,0,2,3	8	0	82·6
17	06 03	553	494	11 29	59	13 54	7·4	−5·7 22 02	13·1	20 40	1148	1129	06 43	19	2,2,2,2,2,1,1,3	15	0	82·6
18	18 23	548	521	10 40	27	13 33	9·1	−3·5 04 11	12·6	00 12	1137	1122	11 25	15	2,2,2,1,2,1,2,1	13	1	82·5
19 *d*	06 11	566	*446*	12 56	*120*	14 01	*14·5*	*−16·3* 17 08	*30·8*	17 07	*1224*	1114	07 10	*110*	3,2,4,3,4,5,3,1	25	1	82·4
20 *q*	21 11	525	489	12 29	36	03 42	5·7	−3·2 09 52	8·9	12 00	1148	1138	04 23	10	2,2,1,0,1,1 0,0	7	0	82·4
21	22 29	544	450	09 34	94	12 16	9·5	−3·9 22 43	13·4	15 30	1154	1135	08 10	19	0,1,3,4,2,2,0,2	14	1	82·4
22	06 31	546	486	13 12	60	13 37	9·1	−5·7 01 42	14·8	17 00	1154	1123	06 40	31	2,3,3,2,2,2,1,1	16	1	82·4
23	22 42	545	490	12 58	55	16 46	7·3	−2·5 09 58	9·8	21 20	1147	1128	11 10	19	0,2,2,2,3,1,1,2	13	1	82·5
24	20 00	541	502	02 00	39	13 52	6·5	−5·5 01 25	12·0	15 11	1143	1135	13 33	*8*	2,2,1,1,2,1,0,0	9	0	82·5
25	19 16	572	479	22 34	93	13 48	6·3	−7·0 22 33	13·3	22 40	1176	1126	13 12	50	2,1,1,0,1,1,3,4	13	1	82·5
26	04 55	541	482	12 04	59	16 29	9·1	−2·6 23 48	11·7	19 20	1179	1129	10 10	50	1,1,2,3,2,2,2,2	15	1	82·5
27	05 34	542	492	18 44	50	12 53	6·5	−9·6 18 55	16·1	18 58	1159	1123	07 01	36	2,3,2,1,2,0,4,3	17	1	82·4
28	01 20	538	489	13 47	49	14 25	6·2	−4·9 00 31	11·1	17 19	1152	1112	01 36	40	3,1,2,2,2,1,1,1	13	1	82·4
29	06 00	541	504	13 00	37	13 45	6·6	−1·0 21 13	7·6	16 28	1149	1130	03 50	19	1,2,2,2,2,2,1,2	14	1	82·4
30 *q*	18 44	539	516	11 40	*23*	13 58	4·4	−0·4 00 01	4·8	16 40	1142	1127	13 10	15	1,1,1,1,1,0,1,0	6	0	82·2
31	02 22	548	513	15 09	35	14 47	5·6	−3·8 21 25	9·4	21 35	1142	1125	12 30	17	2,1,0,1,2,1,1,2	10	0	82·2
Mean	− −	548	494	− −	54	− −	7·3	−5·4 − −	12·7	− −	1154	1124	− −	30	−	−	0·58	82·7

q denotes an international quiet day and *d* an international disturbed day.

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

163 ESKDALEMUIR

NORTH COMPONENT

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−0·1	+0·1	+0·1	+4·2	+6·7	+6·7	*+11·1*	+9·1	+5·6	+2·3	−3·9	−10·3	*−10·8*	−7·8	−5·1	−4·3	−2·7	−1·2	−1·1	−1·6	−2·4	−0·1	+4·4	+1·1
Feb.	*−19·0*	−8·6	−4·8	−2·7	+2·7	+4·6	+5·6	+4·6	+0·6	−2·7	−10·1	−12·3	−10·5	−8·5	−1·0	+1·6	+7·9	+8·1	+9·8	+9·7	*+10·9*	+6·7	+5·3	+2·3
Mar.	+3·5	−8·3	−2·1	−8·2	+2·2	+7·9	+4·1	+2·0	−12·0	−17·3	*−27·3*	−26·7	−23·8	−9·6	+6·4	*+32·5*	+17·7	+9·4	+12·2	+18·0	+9·2	+5·0	+2·3	+2·8
Apr.	−1·5	+5·5	−2·0	+9·5	+6·3	+11·1	+10·2	+3·1	−6·8	−20·9	−32·8	*−37·4*	−32·5	−18·9	−7·5	+11·7	+21·9	+22·1	+23·5	*+24·0*	+15·0	+15·1	+5·8	−24·6
May	+7·1	+5·9	+3·8	+7·0	+8·7	+1·8	−6·2	−12·5	−20·6	−26·7	−34·2	*−35·0*	−34·1	−27·5	−12·1	+7·4	+19·5	+31·0	*+33·1*	+29·0	+20·7	+13·1	+11·8	+9·1
June	+2·2	+3·8	+4·1	+7·9	+8·3	+3·4	−0·9	−12·9	−21·9	−30·1	*−35·1*	−34·4	−34·1	−24·2	−8·5	+7·8	+22·9	+26·3	*+31·7*	+31·1	+22·5	+13·2	+11·3	+5·8
July	−12·7	−6·8	−17·3	−19·0	−4·5	−9·4	−18·9	−13·5	−17·7	−23·9	*−31·4*	−30·0	−25·4	−10·9	+2·8	+19·1	+28·6	+33·5	+31·0	*+39·1*	+28·9	+21·7	+23·3	+13·5
Aug.	+10·4	+10·8	+7·8	+8·4	+7·6	+5·1	+1·1	−8·3	−19·6	−30·5	*−37·2*	−37·2	−28·3	−17·8	−8·5	+1·7	+14·6	+18·3	+19·6	*+22·2*	+19·1	+17·5	+12·3	+10·6
Sept.	+7·4	+6·0	+0·1	−4·1	+2·0	−1·1	−14·8	−13·5	−19·1	−27·1	*−35·0*	−34·2	−26·9	−5·0	+0·6	+17·7	+29·5	*+31·5*	+22·0	+14·8	+13·1	+8·5	+14·0	+13·5
Oct.	+9·4	+8·3	+8·4	+10·7	*+14·0*	+12·0	+13·9	+10·5	−3·1	−19·0	−26·7	*−31·1*	−29·1	−21·5	−13·9	−6·7	−0·9	+4·0	+7·0	+8·8	+10·0	+12·6	+12·0	+10·4
Nov.	+4·5	+2·9	+4·4	+4·3	+8·2	*+10·2*	+10·1	+7·1	+2·3	−8·5	−16·2	*−20·5*	−18·3	−15·7	−13·4	−8·1	−0·9	+3·3	+4·1	+7·8	+8·9	+7·2	+8·4	+8·0
Dec.	+3·0	+3·5	+5·0	+5·7	+7·1	*+10·1*	+9·4	+6·5	+2·3	−5·5	−9·4	−15·0	*−16·7*	−13·1	−10·3	−6·3	−2·5	+2·3	+2·7	+5·4	+3·1	+3·8	+3·7	+5·2
Year	+1·1	+1·9	+0·7	+2·0	+5·8	+5·2	+2·1	−1·5	−9·1	−17·5	−24·9	*−27·0*	−24·3	−15·1	−5·9	+6·2	+12·9	+15·7	+16·3	*+17·3*	+13·2	+10·3	+9·5	+4·8
Winter	−2·9	−0·5	+1·2	+2·9	+6·2	+7·9	*+9·0*	+6·9	+2·7	−3·6	−9·9	*−14·6*	−14·1	−11·3	−7·4	−4·3	+0·4	+3·1	+3·8	+5·3	+5·1	+4·4	+5·5	+4·1
Equinox	+4·8	+2·9	+1·2	+2·0	+6·1	+7·5	+3·3	+0·5	−10·2	−21·0	−30·5	*−32·4*	−28·1	−13·8	−3·6	+13·8	*+17·0*	+16·7	+16·2	+16·4	+11·9	+10·3	+8·6	+0·5
Summer	+1·7	+3·4	−0·4	+1·1	+5·1	+0·2	−6·2	−11·8	−19·9	−27·8	*−34·4*	−34·1	−30·4	−20·1	−6·6	+8·9	+21·4	+27·3	+28·8	*+30·3*	+22·8	+16·3	+14·7	+9·8

WEST COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−8·6	−5·3	−4·2	−3·9	−3·3	+0·6	+1·5	+2·7	+0·9	+1·2	+3·3	+7·5	+14·2	+15·4	*+13·7*	*+10·3*	*+5·2*	*+6·1*	*−3·2*	*−6·7*	*−8·8*	*−12·8*	−13·6	*−12·1*
Feb.	*−16·6*	−9·0	−6·9	−4·1	−5·5	+0·6	+0·2	−1·4	−7·1	−6·9	−4·9	+1·9	+13·7	+16·7	*+17·1*	+13·5	+11·3	+8·3	+6·4	+1·3	0·0	−10·9	−4·3	−13·0
Mar.	−15·1	−16·7	−14·6	−16·2	−10·0	−9·1	−9·5	−11·6	*−17·8*	−11·4	−3·4	+11·9	+18·3	+29·0	*+33·4*	+32·6	+21·7	+14·3	+7·5	−1·1	−2·5	−7·5	−7·5	−14·8
Apr.	−13·5	−11·6	−12·2	−15·2	−10·9	−8·9	−13·3	−19·0	*−22·9*	−19·5	−6·8	+9·6	+24·8	*+35·3*	+33·9	+33·2	+22·9	+14·6	+11·6	+5·0	+0·2	−4·2	−11·2	−22·0
May	−6·1	−8·6	−7·9	−12·3	−15·7	−19·7	−20·7	−25·9	*−28·9*	−21·8	−8·2	+9·9	+23·1	+28·6	*+31·2*	+28·5	+23·8	+17·3	+11·8	+7·5	+3·3	+0·1	−4·1	−5·3
June	−4·8	−6·6	−7·9	−13·3	−15·5	−21·0	−29·1	*−31·9*	−29·3	−23·7	−13·9	+2·4	+18·1	+27·9	*+33·6*	+30·8	+28·6	+20·5	+17·6	+12·7	+7·9	+2·6	−1·3	−4·5
July	−10·4	−14·8	−16·2	−21·9	−19·1	−27·0	−27·1	*−30·4*	−26·2	−21·9	−9·7	+7·6	+22·2	+30·4	+32·3	*+32·6*	+25·0	+17·8	+13·4	+15·1	+15·0	+8·3	+4·3	+0·8
Aug.	−2·3	−7·3	−10·3	−9·0	−11·6	−17·7	−23·3	−29·7	*−30·7*	−23·4	−8·3	+10·1	+27·2	*+36·1*	+33·8	+25·1	+19·5	+9·4	+5·3	+5·4	+2·5	+3·3	−0·7	−3·3
Sept.	−11·6	−13·7	−13·7	−10·4	−9·2	−4·7	−13·1	−20·0	*−23·6*	−16·5	−8·0	+5·1	+23·1	+33·7	*+38·4*	+38·3	+27·3	+13·8	+6·0	−9·0	−4·5	−6·4	−10·5	−10·8
Oct.	−8·7	−7·1	−10·2	−7·7	−6·1	−3·1	−5·0	−10·4	*−17·6*	−16·7	−5·4	+10·7	+22·3	*+27·5*	+26·0	+18·3	+9·8	+7·1	+4·8	−0·1	−4·8	−7·8	−6·3	−9·5
Nov.	−12·5	−8·5	−6·5	−5·3	−2·7	−3·0	−2·5	−2·7	−6·8	−8·9	−4·1	+6·4	+15·4	*+19·6*	+17·4	+13·1	+10·4	+9·8	+6·0	+1·3	−1·7	−9·1	*−13·4*	−12·0
Dec.	−9·9	−7·7	−5·9	−4·8	−2·9	−2·6	−1·6	−3·1	−4·8	−6·5	−2·1	+5·8	+11·8	*+16·1*	+16·0	+12·7	+9·3	+6·1	+4·8	−0·1	−1·8	−6·0	*−11·5*	−11·3
Year	−10·1	−9·7	−9·7	−10·3	−9·4	−9·6	−12·0	−15·3	*−17·9*	−14·7	−5·9	+7·4	+19·5	+26·4	*+27·3*	+24·1	+17·9	+12·1	+7·7	+2·6	+0·4	−4·2	−6·7	−9·8
Winter	−11·9	−7·6	−5·9	−4·5	−3·6	−1·1	−0·6	−1·1	−4·5	−5·3	−2·0	+5·4	+13·8	*+16·9*	+16·1	+12·4	+9·0	+7·6	+3·5	−1·0	−3·1	−9·7	−10·7	*−12·1*
Equinox	−12·2	−12·3	−12·6	−12·4	−9·0	−6·4	−10·2	−15·2	*−20·4*	−16·0	−5·9	+9·3	+22·1	+31·3	*+32·9*	+30·6	+20·4	+12·5	+7·4	−1·3	−2·9	−6·5	−8·9	−14·3
Summer	−6·2	−9·3	−10·5	−14·1	−15·5	−21·3	−25·1	*−29·5*	−28·7	−22·7	−9·8	+7·5	+22·6	+30·7	*+32·7*	+29·2	+24·2	+16·2	+12·0	+10·2	+7·2	+3·5	−0·4	−3·1

VERTICAL COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−5·7	−6·5	−7·5	*−8·6*	−7·7	−7·3	−7·8	−7·1	−5·6	−4·0	−3·4	−1·5	0·0	+1·9	+4·7	+10·7	+13·5	+13·8	*+14·3*	+9·8	+6·4	+2·7	−2·0	−3·1
Feb.	−12·8	−14·2	−15·6	*−17·5*	−16·6	−13·2	−9·9	−7·7	−4·5	−1·7	−1·1	+0·6	+1·8	+5·7	+12·5	+17·1	*+20·3*	+18·4	+17·6	+15·1	+13·2	+4·8	−2·2	−10·1
Mar.	−16·5	−27·5	−26·4	*−28·1*	−24·8	−12·7	−5·1	−2·2	+0·1	−1·1	+0·4	+2·1	−5·9	−9·1	+4·7	+29·4	*+37·6*	+30·4	+27·2	+24·7	+17·4	+2·0	−4·9	−11·7
Apr.	*−18·1*	−14·6	−16·4	−15·5	−11·4	−9·8	−5·5	−6·0	−6·9	−7·1	−7·9	−7·4	−4·7	+4·6	+12·6	+22·1	*+24·1*	+21·7	+21·2	+18·1	+7·9	+3·9	−2·0	−2·9
May	−2·6	−8·0	−10·4	−10·8	−13·4	−10·8	−13·1	−13·1	−11·9	−10·7	−13·6	*−15·1*	−10·5	−2·2	+4·5	+15·1	+22·1	*+26·2*	+24·3	+20·7	+16·3	+12·7	+4·6	−0·3
June	−7·3	−12·2	*−15·2*	−12·2	−9·0	−7·4	−5·9	−5·4	−6·9	−9·1	−11·1	−13·5	−10·7	−4·6	+3·3	+11·9	+21·7	*+26·5*	+23·3	+19·6	+14·3	+9·0	+2·3	−1·4
July	−14·4	−14·0	−10·3	−12·0	−16·6	−15·3	*−18·7*	−9·9	−5·6	−6·6	−8·1	−10·1	−9·4	−2·0	+6·1	+13·3	+21·2	*+26·0*	+25·1	+21·0	+18·6	+13·1	+9·2	−0·6
Aug.	−3·7	−5·0	−5·7	−5·0	−3·6	−4·6	−2·9	−0·2	−0·8	−5·0	−10·1	*−15·4*	−15·2	−7·2	+1·1	+9·0	+13·4	*+17·4*	+15·5	+12·4	+9·8	+5·2	+0·9	−0·3
Sept.	−22·3	−30·8	*−39·5*	−35·5	−32·9	−30·7	−25·2	−14·6	−6·6	−4·6	−3·6	−1·2	+4·6	+19·4	+33·3	+36·0	*+40·4*	+38·8	+34·9	+26·2	+14·8	+5·7	−0·8	−5·8
Oct.	*−9·1*	−8·6	−8·4	−7·7	−7·2	−6·5	−6·4	−3·6	−1·1	−1·8	−5·0	−6·6	−3·5	+1·6	+8·0	+13·1	*+14·3*	+12·2	+11·4	+10·7	+8·6	+4·0	−1·2	−7·2
Nov.	−2·4	−3·1	−5·6	−7·7	−7·2	−6·5	−5·5	−5·0	−2·7	−2·1	−3·5	−3·1	−1·3	+1·7	+5·3	+7·8	*+8·5*	+7·9	+6·4	+6·2	+5·5	+4·4	+2·5	−0·5
Dec.	+0·6	−1·4	−3·5	−5·2	−5·7	*−6·1*	−5·6	−5·2	−3·6	−3·3	−4·3	−4·3	−3·3	−1·9	+1·7	+5·8	*+7·8*	+6·9	+6·3	+6·5	+6·0	+5·0	+4·5	+2·3
Year	−9·5	−12·2	−13·7	*−13·8*	−13·0	−10·9	−9·3	−6·7	−4·7	−4·8	−5·9	−6·3	−4·8	+0·7	+8·1	+15·9	+20·4	*+20·5*	+19·0	+15·9	+11·6	+6·0	+0·9	−3·5
Winter	−5·1	−6·3	−8·1	*−9·7*	−9·3	−8·3	−7·2	−6·3	−4·1	−2·8	−3·1	−2·1	−0·7	+1·9	+6·1	+10·3	*+12·5*	+11·7	+11·1	+9·4	+7·8	+4·2	+0·7	−2·9
Equinox	−16·5	−20·4	*−22·7*	−21·7	−19·1	−14·9	−10·5	−6·6	−3·6	−3·7	−4·0	−3·3	−2·4	+4·1	+14·7	+25·1	*+29·1*	+25·8	+23·7	+19·9	+12·2	+3·9	−2·2	−6·9
Summer	−7·0	−9·8	−10·4	−10·0	−10·7	−9·5	−10·1	−7·1	−6·3	−7·9	−10·7	*−13·5*	−11·5	−4·0	+3·7	+12·3	+19·6	*+24·0*	+22·1	+18·4	+14·7	+10·0	+4·3	−0·7

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

164 ESKDALEMUIR

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
DECLINATION (measured positive towards the west)																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−1·75	−1·08	−0·85	−0·97	−0·96	−0·18	−0·18	+0·15	−0·07	+0·14	+0·83	+1·97	+3·37	*+3·47*	+3·01	+2·27	+1·17	+1·30	−0·60	−1·29	−1·69	−2·60	*−2·96*	−2·50
Feb.	−2·54	−1·46	−1·19	−0·71	−1·25	−0·08	−0·20	−0·49	−1·48	−1·29	−0·56	+0·92	+3·24	*+3·76*	+3·52	+2·67	+1·94	+1·33	+0·87	−0·16	−0·48	−2·51	−1·10	*−2·75*
Mar.	*−3·23*	−3·05	−2·89	−2·95	−2·14	−2·19	−2·12	−2·45	−3·10	−1·56	+0·51	+3·59	+4·77	+6·34	*+6·53*	+5·23	+3·64	+2·51	+0·99	−1·01	−0·91	−1·75	−1·63	−3·13
Apr.	−2·68	−2·60	−2·41	−3·51	−2·50	−2·30	−3·16	−4·00	*−4·37*	−3·05	+0·04	+3·60	+6·48	*+8·02*	+7·23	+6·26	+3·72	+2·00	+1·33	−0·04	−0·62	−1·51	−2·53	−3·40
May	−1·55	−2·01	−1·77	−2·80	−3·57	−4·08	−3·93	−4·73	*−4·97*	−3·26	−0·17	+3·55	+6·18	*+7·02*	+6·87	+5·47	+3·99	+2·16	+0·95	+0·26	−0·23	−0·55	−1·35	−1·48
June	−1·27	−1·50	−1·78	−3·04	−3·52	−4·41	−5·89	*−5·92*	−4·99	−3·50	−1·10	+1·98	+5·17	+6·74	*+7·20*	+5·92	+4·82	+3·02	+2·20	+1·23	+0·63	−0·07	−0·75	−1·17
July	−1·56	−2·71	−2·54	−3·62	−3·70	−5·09	−4·70	*−5·59*	−4·56	−3·42	−0·61	+2·84	+5·61	*+6·66*	+6·46	+5·80	+3·84	+2·17	+1·37	+1·38	+1·79	+0·74	−0·13	−0·43
Aug.	−0·93	−1·95	−2·43	−2·20	−2·69	−3·82	−4·80	*−5·67*	−5·39	−3·44	−0·07	+3·67	+6·76	*+8·11*	+7·24	+5·04	+3·33	+1·11	+0·22	+0·14	−0·33	−0·10	−0·67	−1·13
Sept.	−2·68	−3·06	−2·79	−1·94	−1·96	−0·90	−2·03	−3·48	*−3·97*	−2·18	−0·11	+2·53	+5·86	+7·08	*+7·79*	+7·02	+4·28	+1·44	+0·26	−2·48	−1·48	−1·67	−2·75	−2·78
Oct.	−2·17	−1·80	−2·45	−2·04	−1·85	−1·15	−1·63	−2·57	*−3·44*	−2·57	+0·06	+3·53	+5·80	*+6·53*	+5·90	+4·01	+2·03	+1·27	+0·67	−0·40	−1·41	−2·13	−1·80	−2·39
Nov.	−2·73	−1·85	−1·52	−1·27	−0·90	−1·05	−0·96	−0·85	−1·48	−1·43	−0·12	+2·19	+3·93	*+4·68*	+4·12	+3·03	+2·16	+1·85	+1·05	−0·07	−0·73	−2·17	*−3·09*	−2·79
Dec.	−2·14	−1·71	−1·42	−1·23	−0·89	−0·96	−0·74	−0·92	−1·08	−1·09	−0·02	+1·83	+3·13	*+3·85*	+3·70	+2·86	+1·99	+1·14	+0·87	−0·25	−0·51	−1·39	−2·49	*−2·53*
Year	−2·10	−2·06	−2·00	−2·19	−2·16	−2·18	−2·53	−3·04	*−3·24*	−2·22	−0·11	+2·68	+5·03	*+6·02*	+5·80	+4·63	+3·08	+1·77	+0·85	−0·22	−0·50	−1·31	−1·77	−2·21
Winter	−2·29	−1·53	−1·25	−1·05	−1·00	−0·57	−0·52	−0·53	−1·03	−0·92	+0·03	+1·73	+3·42	*+3·94*	+3·59	+2·71	+1·81	+1·41	+0·55	−0·44	−0·85	−2·17	−2·41	*−2·64*
Equinox	−2·69	−2·63	−2·63	−2·61	−2·11	−1·63	−2·23	−3·13	*−3·72*	−2·34	+0·13	+3·31	+5·73	*+6·99*	+6·86	+5·63	+3·42	+1·81	+0·81	−0·98	−1·11	−1·77	−2·18	−2·93
Summer	−1·33	−2·04	−2·13	−2·91	−3·37	−4·35	−4·83	*−5·48*	−4·98	−3·41	−0·49	+3·01	+5·93	*+7·13*	+6·94	+5·56	+3·99	+2·11	+1·19	+0·75	+0·47	+0·01	−0·73	−1·05
INCLINATION																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−0·01	−0·09	−0·13	−0·43	−0·59	−0·63	*−0·95*	−0·82	−0·52	−0·27	+0·13	*+0·54*	+0·51	+0·34	+0·26	+0·40	+0·44	+0·33	+0·48	+0·45	+0·44	+0·26	−0·14	+0·02
Feb.	*+1·17*	+0·34	+0·02	−0·20	−0·51	*−0·64*	−0·62	−0·47	−0·05	+0·23	+0·71	+0·80	+0·54	+0·47	+0·13	+0·13	−0·17	−0·19	−0·30	−0·28	−0·39	−0·16	−0·35	−0·22
Mar.	−0·43	+0·10	−0·31	+0·07	−0·61	−0·71	−0·26	−0·02	+1·05	+1·27	*+1·86*	+1·64	+1·16	0·00	−0·78	*−1·87*	−0·54	−0·07	−0·23	−0·56	−0·14	−0·17	−0·17	−0·26
Apr.	−0·16	−0·56	−0·10	−0·79	−0·54	−0·85	−0·62	−0·08	+0·60	+1·47	+2·06	*+2·14*	+1·67	+0·85	+0·33	−0·69	−1·17	−1·13	−1·19	*−1·20*	−0·79	−0·84	−0·27	+1·86
May	−0·44	−0·47	−0·40	−0·56	−0·68	−0·11	+0·38	+0·87	+1·47	+1·80	*+2·03*	+1·79	+1·66	+1·35	+0·47	−0·52	−1·08	−1·63	*−1·74*	−1·50	−1·01	−0·55	−0·61	−0·53
June	−0·24	−0·46	−0·53	−0·63	−0·55	−0·11	+0·33	+1·17	+1·69	+2·09	*+2·22*	+1·90	+1·72	+1·09	+0·17	−0·65	−1·38	−1·37	*−1·76*	−1·75	−1·24	−0·68	−0·67	−0·35
July	+0·63	+0·31	+1·11	+1·27	+0·15	+0·63	+1·17	+1·07	+1·40	+1·72	+2·00	+1·62	+1·13	+0·24	−0·49	−1·39	−1·71	−1·81	−1·61	−2·27	−1·65	−1·23	−1·37	−0·92
Aug.	−0·75	−0·73	−0·51	−0·55	−0·43	−0·20	+0·18	+0·97	+1·71	+2·21	*+2·32*	+1·92	+1·10	+0·48	+0·11	−0·24	−0·91	−0·91	−0·98	*−1·23*	−1·05	−1·07	−0·78	−0·66
Sept.	−0·88	−0·97	−0·80	−0·46	−0·82	−0·63	+0·53	+0·81	+1·43	+1·90	*+2·33*	+2·15	+1·56	+0·34	+0·25	−0·81	*−1·32*	−1·31	−0·67	−0·20	−0·43	−0·33	−0·79	−0·89
Oct.	−0·73	−0·67	−0·62	−0·79	*−1·01*	−0·91	*−1·01*	−0·63	+0·43	+1·45	+1·71	*+1·74*	+1·52	+1·07	+0·75	+0·51	+0·28	−0·06	−0·24	−0·31	−0·38	−0·62	−0·73	−0·73
Nov.	−0·18	−0·15	−0·33	−0·40	−0·68	*−0·79*	−0·77	−0·55	−0·12	+0·63	+1·04	*+1·18*	+0·96	+0·80	+0·77	+0·54	+0·12	−0·16	−0·20	−0·38	−0·42	−0·23	−0·30	−0·37
Dec.	−0·05	−0·16	−0·34	−0·44	−0·57	*−0·78*	−0·74	−0·51	−0·17	+0·37	+0·54	+0·80	*+0·85*	+0·59	+0·49	+0·38	+0·23	−0·07	−0·09	−0·20	−0·03	−0·05	+0·03	−0·13
Year	−0·17	−0·29	−0·25	−0·33	−0·57	−0·48	−0·20	+0·15	+0·74	+1·24	*+1·58*	+1·52	+1·20	+0·64	+0·20	−0·35	−0·60	−0·70	−0·71	*−0·79*	−0·59	−0·47	−0·51	−0·26
Winter	+0·23	−0·01	−0·19	−0·37	−0·59	−0·71	*−0·77*	−0·59	−0·22	+0·24	+0·60	*+0·83*	+0·72	+0·55	+0·41	+0·36	+0·15	−0·02	−0·03	−0·10	−0·10	−0·05	−0·19	−0·17
Equinox	−0·55	−0·53	−0·46	−0·49	−0·75	*−0·77*	−0·33	+0·02	+0·87	+1·52	*+1·99*	+1·92	+1·48	+0·57	+0·14	−0·72	−0·69	−0·64	−0·59	−0·57	−0·44	−0·49	−0·49	−0·00
Summer	+0·72	+1·13	+1·18	+1·71	+2·01	+2·70	+3·01	*+3·52*	+3·20	+2·10	+0·07	−2·36	−4·28	*−4·91*	−4·59	−3·44	−2·20	−0·83	−0·25	−0·05	+0·05	+0·24	+0·60	+0·69
HORIZONTAL FORCE																								
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−1·9	−1·0	−0·8	+3·3	+5·9	+6·7	*+11·2*	+9·5	+5·7	+2·5	−3·1	*−8·5*	−7·6	−4·4	−2·1	−2·0	−1·6	+0·1	−1·8	−3·0	−4·2	−2·8	+1·4	−1·5
Feb.	*−22·1*	−10·3	−6·1	−3·5	+1·5	+4·6	+5·5	+4·2	−0·9	−4·1	−10·9	−11·6	−7·4	−4·8	+2·6	+4·4	+10·1	+9·6	*+10·9*	+9·7	+10·6	+4·2	+4·3	−0·5
Mar.	+0·3	−11·6	−5·1	−11·4	0·0	+5·8	+2·0	−0·5	−15·5	−19·3	*−27·4*	−23·6	−19·4	−3·3	+13·3	*+38·6*	+21·9	+12·2	+13·5	+17·4	+8·5	+3·3	+0·7	−0·4
Apr.	−4·3	+2·9	−4·5	+6·1	+3·8	+9·0	+7·2	−1·0	−11·5	−24·5	−33·5	*−34·5*	−26·5	−11·0	−0·2	+18·4	*+26·2*	+24·7	+25·5	+24·5	+14·7	+13·9	+3·3	−28·7
May	+5·6	+4·0	+2·1	+4·3	+5·2	−2·4	−10·4	−17·7	−26·2	−30·7	*−35·1*	−32·1	−28·5	−20·9	−5·3	+13·2	+24·1	+33·9	*+34·8*	+29·9	+20·9	+12·8	+10·7	+7·8
June	+0·9	+2·3	+2·3	+4·9	+4·8	−1·1	−7·0	−19·3	−27·6	−34·4	*−37·0*	−33·1	−29·5	−17·8	−1·3	+14·1	+28·4	+30·0	*+34·7*	+33·1	+23·7	+13·4	+10·8	+4·7
July	−14·6	−9·8	−20·3	−23·2	−8·4	−14·9	−24·2	−19·6	−22·8	−28·0	*−32·7*	−27·7	−20·2	−4·3	+9·5	+25·5	+33·2	+36·5	+33·1	*+41·4*	+31·4	+23·0	+23·7	+13·4
Aug.	+9·7	+9·0	+5·5	+6·3	+5·0	+1·3	−3·8	−14·4	−25·6	−34·7	*−38·1*	−34·2	−21·9	−9·8	−1·2	+6·9	+18·4	+19·9	+20·3	*+22·8*	+19·2	+17·8	+11·9	+9·7
Sept.	+4·8	+3·0	−2·7	−6·2	0·0	−2·0	−17·2	−17·4	−23·6	−29·9	*−35·9*	−32·4	−21·5	+2·1	+8·6	+25·3	*+34·5*	+33·7	+22·8	+12·6	+11·9	+7·0	+11·5	+11·0
Oct.	+7·4	+6·7	+6·1	+8·9	+12·4	+11·1	*+12·6*	+8·1	−6·7	−22·1	−27·2	*−28·2*	−23·8	−15·3	−8·2	−2·8	+1·1	+5·4	+7·8	+8·6	+8·8	+10·7	+10·4	+8·2
Nov.	+1·8	+1·1	+2·9	+3·1	+7·5	*+9·4*	+9·4	+6·4	+0·8	−10·2	−16·7	*−18·7*	−14·7	−11·3	−9·5	−5·2	+1·3	+5·3	+5·3	+7·9	+8·3	+5·1	+5·4	+5·3
Dec.	+0·9	+1·8	+3·7	+4·6	+6·3	*+9·3*	+8·9	+5·7	+1·2	−6·7	−9·6	−13·5	*−13·9*	−9·5	−6·7	−3·5	−0·5	+3·5	+3·6	+5·3	+2·7	+2·5	+1·2	+2·7
Year	−1·0	−0·2	−1·4	−0·2	+3·7	+3·1	−0·5	−4·7	−12·7	−20·2	*−25·6*	−24·8	−19·6	−9·2	0·0	+11·1	+16·4	*+17·9*	+17·5	+17·5	+13·0	+9·2	+7·9	+2·6
Winter	−5·3	−2·1	−0·1	+1·9	+5·3	+7·5	*+8·7*	+6·5	+1·7	−4·6	−10·1	*−13·1*	−10·9	−7·5	−3·9	−1·6	+2·3	+4·6	+4·5	+5·0	+4·3	+2·3	+3·1	+1·5
Equinox	+2·1	+0·3	−1·5	−0·7	+4·1	+6·0	+1·1	−2·7	−14·3	−23·9	*−31·0*	−29·7	−22·8	−6·9	+3·4	+19·9	*+20·9*	+19·0	+17·4	+15·8	+11·0	+8·7	+6·5	−2·5
Summer	+0·4	+1·4	−2·6	−1·9	+1·7	−4·3	−11·3	−17·7	−25·5	−31·9	*−35·7*	−31·8	−25·0	−13·2	+0·4	+14·9	+26·0	+30·1	+30·7	*+31·8*	+23·8	+16·7	+14·3	+8·9

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

165 ESKDALEMUIR

NORTH COMPONENT

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−1·8	−0·9	−1·1	+1·7	+2·1	+4·7	+4·2	+3·6	+1·3	−2·9	−6·4	−9·7	−7·6	−1·7	+0·8	+0·8	+2·2	+2·9	+3·2	+1·1	+0·8	+2·0	+1·0	−0·4
Feb.	+4·9	+2·5	−0·1	+1·4	+3·0	+6·1	+9·2	+9·4	+7·2	−1·5	−10·8	−17·3	*−19·3*	−18·9	−8·9	−5·0	−1·3	0·0	+1·5	+5·9	+6·9	*+10·0*	+8·9	+6·5
Mar.	+3·2	+4·1	+3·3	+4·3	+3·5	+4·4	+4·5	+5·6	−1·5	−10·8	*−19·6*	−18·7	−18·4	−12·9	−9·4	−2·7	+1·5	+3·8	+6·0	+8·5	+8·2	+11·0	*+12·2*	+10·0
Apr.	+7·9	+6·4	+5·7	+7·0	+7·8	+9·1	+6·9	+3·9	−4·3	−17·9	−28·7	*−33·5*	−33·3	−26·1	−15·8	−0·1	+7·2	*+15·4*	+14·3	+13·5	+11·9	+13·2	+14·7	+14·9
May	+4·7	+7·8	+5·4	+5·1	+5·7	+3·9	−2·0	−9·7	−18·0	−27·8	*−32·2*	−30·3	−22·3	−15·6	−3·1	+5·6	+10·9	+16·5	+19·3	*+22·1*	+20·6	+15·4	+9·1	+8·7
June	+3·1	+5·5	+3·5	+6·5	+8·8	+8·0	+1·2	−8·2	−12·0	−20·7	−30·5	*−30·9*	−28·9	−25·5	−12·4	−0·8	+7·8	+17·8	*+22·3*	+21·2	+20·7	+16·3	+14·7	+12·7
July	+5·2	+3·2	+3·8	+5·9	+8·9	+7·9	+1·0	−8·7	−17·5	−27·7	−35·9	*−37·1*	−30·2	−14·8	+0·8	+12·8	+11·7	+11·1	+18·2	*+19·9*	+18·8	+17·6	+14·5	+10·6
Aug.	+12·0	+10·9	+10·0	+9·6	+9·5	+7·3	+1·8	−7·4	−18·9	−32·6	*−36·2*	−32·1	−25·3	−18·0	−8·5	+2·4	+8·6	+11·6	+12·4	+16·7	+16·6	+16·0	+16·3	*+17·3*
Sept.	+11·1	+7·3	+7·6	+4·4	+7·8	−12·0	+9·2	+3·2	−6·7	−20·4	−32·6	*−36·8*	−31·6	−23·6	−17·2	−6·9	−0·6	+12·0	+15·9	+16·3	+16·1	+16·7	+17·9	*+19·0*
Oct.	+9·3	+6·0	+6·7	+7·3	+9·0	+8·6	+7·5	+7·3	−2·9	−16·7	−29·3	*−33·3*	−30·9	−23·3	−13·7	−4·3	+1·3	+5·8	+11·5	+13·2	+15·6	+15·5	*+16·3*	+13·7
Nov.	+3·1	+2·7	+3·3	+3·3	+5·7	+6·9	+7·7	+7·1	+3·6	−6·1	−14·4	*−19·2*	−18·5	−13·5	−8·4	−3·4	+1·2	+3·7	+5·6	+6·7	+6·8	+7·5	+5·5	+3·0
Dec.	+1·7	+1·2	+1·5	+1·2	+1·6	+2·2	+2·9	+1·1	−1·1	−6·5	−11·5	*−15·7*	−14·6	−8·6	−6·0	−2·7	+1·3	+4·8	+8·0	*+9·1*	+8·6	+7·4	+6·8	+7·1
Year	+5·4	+4·7	+4·1	+4·8	+6·1	+6·8	+4·5	+0·6	−5·9	−15·9	−24·0	*−26·2*	−23·5	−16·9	−8·5	−0·3	+4·3	+8·8	+11·5	*+12·9*	+12·6	+12·4	+11·5	+10·3
Winter	+2·0	+1·4	+0·9	+1·9	+3·1	+4·9	+6·0	+5·4	+2·8	−4·3	−10·8	*−15·5*	−15·1	−10·7	−5·7	−2·6	+0·9	+2·8	+4·5	+5·7	+5·7	*+6·8*	+5·6	+4·1
Equinox	+7·9	+5·9	+5·8	+5·7	+7·0	+8·5	+7·1	+5·1	−3·9	−16·5	−27·5	*−30·6*	−28·6	−21·5	−14·1	−3·6	+2·3	+9·2	+11·9	+12·9	+13·0	+14·0	*+15·3*	+14·3
Summer	+6·3	+6·8	+5·7	+6·7	+8·2	+6·8	+0·5	−8·5	−16·6	−17·2	*−33·8*	−32·7	−26·6	−18·5	−5·8	+5·0	+9·8	+14·3	+18·1	*+20·0*	+19·2	+16·3	+13·6	+2·5

WEST COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−6·4	−4·1	−4·0	−2·3	−2·3	−2·3	−2·3	−2·6	−3·8	−2·5	−1·2	+2·3	+8·3	*+12·5*	+9·3	+6·6	+6·0	+5·9	+4·0	−0·5	−1·3	−4·4	*−8·1*	−6·8
Feb.	−6·8	−5·9	+0·1	+1·5	−2·8	−2·7	−5·1	−7·2	−12·2	*−13·9*	−8·2	+0·1	+11·3	*+15·7*	+14·5	+10·6	+5·6	+3·8	+1·9	+3·7	−0·1	+0·2	−1·8	−2·1
Mar.	+0·4	+0·3	−1·9	−2·2	−4·8	−5·7	−9·6	−14·2	*−18·7*	−15·9	−6·9	+7·3	+16·1	*+20·5*	+15·0	+9·4	+4·5	+1·9	−2·2	+1·9	+3·7	+0·7	−0·4	+0·6
Apr.	−1·7	−0·5	−2·1	−4·9	−5·7	−8·8	−16·0	−24·9	−29·2	−26·0	−16·7	−3·0	+15·0	*+25·4*	+23·7	+21·2	+16·2	+12·2	+7·5	+6·5	+5·9	+5·3	+3·1	−2·5
May	−5·2	−3·1	−6·4	−9·5	−15·1	−23·5	−32·7	*−34·1*	−31·1	−20·9	−2·1	+15·4	+29·9	*+36·2*	+35·8	+27·1	+18·8	+11·4	+7·1	+5·6	+2·7	−1·1	−2·7	−2·5
June	−2·1	−2·8	−2·9	−8·2	−12·4	−20·7	−26·5	−30·5	*−30·9*	−28·3	−15·9	+0·8	+16·6	+26·5	*+30·2*	*+26·1*	+20·1	+15·6	+11·4	+8·8	+9·5	+6·2	+5·1	+3·8
July	+0·1	−4·7	−6·4	−11·8	−18·1	−26·9	*−32·7*	−32·3	−29·8	−23·9	−16·1	+1·9	+20·0	*+32·1*	+31·5	+29·5	+20·2	+15·4	+12·9	+11·7	+10·6	+8·2	+6·2	+2·5
Aug.	−2·4	−3·9	−4·5	−6·2	−12·1	−18·8	−26·7	−31·8	*−32·9*	−24·9	−5·6	+16·5	+31·0	*+34·9*	+30·0	+19·6	+8·0	+2·2	+2·9	+7·4	+6·3	+4·9	+3·2	+2·8
Sept.	−8·6	−8·7	−6·9	−3·1	−3·3	−9·0	−16·9	−23·1	*−26·1*	−23·9	−15·3	+2·5	+20·3	*+29·9*	+28·8	+24·4	+16·6	+10·6	+6·5	+4·5	+3·0	−1·0	0·0	−1·2
Oct.	−0·5	−4·1	−4·6	−6·3	−6·7	−9·0	−7·6	−14·9	*−21·8*	−21·3	−12·2	+2·6	+14·6	*+20·4*	+19·5	+13·4	+7·3	+8·0	+8·4	+7·1	+6·4	+2·4	+2·0	−3·0
Nov.	−7·3	−4·4	−3·3	−0·4	−0·5	−1·9	−3·9	−4·1	−5·7	*−10·0*	−6·8	+2·1	+11·5	*+12·1*	+12·0	+9·7	+7·3	+5·5	+4·9	+2·4	+2·1	−5·1	−7·2	−8·9
Dec.	−6·8	−5·7	−2·7	+0·3	−0·9	−3·1	−5·2	−8·0	−9·8	*−11·5*	−7·8	0·0	+7·4	*+11·4*	+10·5	+8·9	+7·2	+6·6	+5·6	+4·5	+1·3	+1·6	−0·9	−2·8
Year	−4·0	−4·0	−3·8	−4·4	−7·0	−11·0	−15·5	−19·0	*−21·0*	−18·6	−9·5	+4·1	+16·8	*+23·1*	+21·7	+17·3	+11·5	+8·2	+5·9	+5·3	+4·2	+1·5	−0·1	−1·7
Winter	−6·8	−5·1	−2·5	−0·2	−1·6	−2·5	−4·1	−5·5	−7·9	*−9·5*	−6·0	+1·1	+9·6	*+12·9*	+11·6	+9·0	+6·5	+5·4	+4·1	+2·5	+0·5	−1·9	−4·5	−5·2
Equinox	−2·6	−3·3	−3·9	−4·1	−5·1	−8·1	−12·5	−19·3	*−24·0*	−21·8	−12·7	+2·4	+16·5	*+24·1*	+21·7	+17·1	+11·2	+8·2	+5·1	+5·0	+4·8	+1·8	+1·2	−1·6
Summer	−2·4	−3·7	−5·0	−8·9	−14·5	−22·5	−29·6	*−32·2*	−31·2	−24·5	−10·0	+8·6	+24·4	*+32·4*	+31·9	+25·7	+16·8	+11·1	+8·6	+8·4	+7·3	+4·5	+3·0	+1·7

VERTICAL COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+1·2	−0·3	−0·4	−1·1	−0·9	−2·2	−2·7	−3·1	*−3·2*	−1·9	−0·6	+0·1	−1·0	−0·3	+1·0	+0·5	+0·3	+0·6	+1·1	+1·7	+2·0	+3·3	*+3·4*	+2·5
Feb.	+0·7	−0·6	−0·9	−1·9	−1·1	−1·6	−2·1	−2·7	−1·5	−0·6	−5·9	*−7·5*	−6·1	−1·8	+1·7	+3·9	+4·1	+4·6	*+4·9*	+3·9	+3·5	+3·0	+2·3	+1·7
Mar.	+0·3	+1·3	+1·2	+1·9	+1·9	+1·5	+0·7	+1·3	+1·0	−2·1	−6·9	*−11·3*	*−11·3*	−8·3	−1·8	+1·7	+2·1	+3·5	*+5·7*	+5·1	+3·8	+3·7	+2·9	+2·1
Apr.	+2·7	+1·8	+2·3	+3·7	+3·5	+3·2	+3·3	+1·9	−0·3	−5·6	−10·1	*−12·3*	*−12·3*	−9·8	−4·7	−0·9	+2·1	+6·0	*+6·9*	+6·5	+4·1	+3·2	+2·9	+1·9
May	+3·6	+1·1	0·0	+2·1	+5·1	+5·0	+5·9	+3·9	+0·8	−6·1	−15·2	*−21·1*	−19·6	−11·7	−6·0	+1·5	+4·7	+8·2	*+8·9*	+7·5	+6·6	+6·3	+5·2	+3·3
June	+1·3	+1·6	+1·5	+1·5	+2·1	+4·6	+3·1	+0·7	−1·7	−3·2	−8·1	−14·7	*−14·9*	−10·8	*−6·5*	−1·9	+4·9	+9·2	*+10·9*	+8·9	+5·1	+3·8	+1·9	+0·7
July	−1·0	+0·1	+1·5	+3·6	+5·3	+5·5	+2·4	−0·9	−3·7	−4·4	−8·5	*−12·5*	−12·2	−8·3	−5·3	+0·8	+5·9	*+8·3*	+7·4	+6·7	+5·7	+3·2	+0·9	−0·5
Aug.	+3·7	+3·5	+3·7	+3·9	+4·5	+6·5	*+6·7*	+6·5	+5·1	−3·5	−13·1	*−18·9*	−17·5	−9·9	−0·7	+2·9	+5·1	+3·5	+0·3	−0·5	+1·3	+2·3	+2·7	+1·9
Sept.	+0·4	−0·1	+0·6	+1·9	−0·9	+0·6	+2·1	+2·9	+1·0	−2·3	−5·8	−11·3	*−15·2*	−10·5	−3·0	+3·5	+5·3	*+7·0*	+6·5	+5·3	+4·0	+3·9	+2·6	+1·5
Oct.	−3·5	−1·0	+0·7	+1·8	+2·4	+2·5	+2·0	+2·8	+2·5	−2·2	−5·3	*−6·0*	−5·9	−4·2	−0·5	+2·6	*+3·4*	+2·1	+1·6	+1·4	+0·5	+0·6	+0·7	+1·0
Nov.	−0·3	−0·3	−0·7	−0·5	−0·5	−0·8	−1·1	−1·9	−1·1	+0·1	−1·9	*−2·7*	−1·3	−1·1	+0·9	+2·9	*+3·3*	+3·0	+2·1	+1·7	+0·5	+0·1	−0·3	−0·1
Dec.	+1·0	+0·9	+0·4	+0·2	0·0	−0·3	−0·4	−0·2	+0·6	−1·1	−2·4	−1·8	−2·4	*−3·5*	−1·8	+1·4	*+2·6*	+2·1	+1·4	+0·8	+1·2	+0·5	+0·2	+0·6
Year	+0·8	+0·7	+0·8	+1·4	+1·8	+2·0	+1·7	+0·9	0·0	−2·7	−7·0	*−10·0*	*−10·0*	−6·7	−2·2	+1·6	+3·7	*+4·8*	*+4·8*	+4·1	+3·2	+2·8	+2·1	+1·4
Winter	+0·7	−0·1	−0·4	−0·8	−0·6	−1·2	−1·6	−2·0	−1·3	−0·9	−2·7	*−3·0*	−2·7	−1·7	+0·5	+2·2	*+2·6*	*+2·6*	+2·4	+2·0	+1·8	+1·7	+1·4	+1·2
Equinox	0·0	+0·5	+1·2	+2·3	+1·7	+1·9	+2·0	+2·2	+1·1	−3·1	−7·0	−10·2	*−11·2*	−8·2	−2·5	+1·7	+3·2	+4·7	*+5·2*	+4·6	+3·1	+2·9	+2·5	+1·6
Summer	+1·9	+1·6	+1·7	+2·8	+4·3	+5·4	+4·5	+2·5	+0·1	−4·3	−11·2	*−16·8*	−16·1	−10·2	−4·6	+0·8	+5·1	*+7·3*	+6·9	+5·7	+4·7	+3·9	+2·7	+1·3

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

DIURNAL INEQUALITIES OF THE MAGNETIC ELEMENTS, DECLINATION, INCLINATION, AND HORIZONTAL FORCE

INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

166 ESKDALEMUIR

DECLINATION (measured positive towards the west)

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−1·22	−0·80	−0·77	−0·54	−0·56	−0·68	−0·66	−0·68	−0·83	−0·38	+0·04	+0·90	+2·02	+2·62	+1·85	+1·30	+1·12	+1·06	+0·68	−0·16	−0·29	−0·98	−1·68	−1·36
Feb.	−1·60	−1·32	+0·02	+0·24	−0·70	−0·81	−1·44	−1·88	−2·80	−2·76	−1·20	+0·78	+3·14	+4·02	+3·34	+2·38	+1·20	+0·77	+0·32	+0·50	−0·32	−0·40	−0·76	−0·72
Mar.	−0·06	−0·12	−0·54	−0·64	−1·12	−1·34	−2·14	−3·14	−3·74	−2·76	−0·54	+2·30	+4·08	+4·74	+3·46	+2·04	+0·86	+0·22	−0·70	+0·02	+0·40	−0·34	−0·62	−0·32
Apr.	−0·70	−0·38	−0·67	−1·30	−1·50	−2·18	−3·56	−5·24	−5·75	−4·50	−2·14	+0·86	+4·50	+6·30	+5·51	+4·32	+2·98	+1·80	+0·90	+0·72	+0·69	+0·50	0·00	−1·16
May	−1·26	−0·97	−1·54	−2·15	−3·33	−4·96	−6·57	−6·51	−5·54	−3·03	+0·98	+4·45	+7·06	+8·05	+7·42	+5·27	+3·35	+1·60	+0·59	+0·17	−0·36	−0·89	−0·94	−0·89
June	−0·56	−0·82	−0·74	−1·96	−2·90	−4·57	−5·44	−5·84	−5·76	−4·86	−1·90	+1·52	+4·64	+6·50	+6·68	+5·46	+3·74	+2·39	+1·34	+0·86	+1·04	+0·56	+0·40	+0·22
July	−0·20	−1·10	−1·46	−2·66	−4·08	−5·82	−6·70	−6·18	−5·30	−3·66	−1·70	+2·00	+5·38	+7·18	+6·38	+5·44	+3·60	+2·64	+1·82	+1·52	+1·34	+0·90	+0·62	+0·04
Aug.	−1·01	−1·26	−1·34	−1·67	−2·88	−4·14	−5·51	−6·14	−5·88	−3·65	+0·44	+4·74	+7·41	+7·88	+6·48	+3·89	+1·26	−0·06	+0·05	+0·78	+0·56	+0·29	−0·06	−0·18
Sept.	−2·24	−2·09	−1·73	−0·82	−1·01	−2·35	−3·84	−4·85	−5·03	−3·98	−1·69	+2·11	+5·50	+7·11	+6·61	+5·26	+3·41	+1·63	+0·64	+0·21	−0·09	−0·92	−0·77	−1·07
Oct.	−0·51	−1·10	−1·22	−1·59	−1·76	−2·20	−1·87	−3·36	−4·30	−3·61	−1·20	+1·98	+4·31	+5·16	+4·56	+2·91	+1·42	+1·38	+1·21	+0·86	+0·62	−0·19	−0·30	−1·20
Nov.	−1·61	−1·01	−0·82	−0·23	−0·35	−0·69	−1·13	−1·15	−1·32	−1·77	−0·75	+1·27	+3·15	+3·05	+2·80	+2·13	+1·43	+0·95	+0·75	+0·19	+0·14	−1·37	−1·71	−1·95
Dec.	−1·46	−1·22	−0·62	0·00	−0·26	−0·73	−1·18	−1·68	−1·94	−2·06	−1·08	+0·68	+2·14	+2·70	+2·40	+1·94	+1·40	+1·13	+0·80	+0·52	−0·12	0·00	−0·48	−0·88
Year	−1·04	−1·02	−0·95	−1·11	−1·70	−2·54	−3·34	−3·89	−4·02	−3·09	−0·89	+1·97	+4·44	+5·44	+4·79	+3·53	+2·15	+1·29	+0·70	+0·52	+0·30	−0·24	−0·53	−0·79
Winter	−1·47	−1·09	−0·55	−0·13	−0·47	−0·73	−1·10	−1·35	−1·72	−1·74	−0·75	+0·91	+2·61	+3·10	+2·60	+1·94	+1·29	+0·98	+0·64	+0·26	−0·15	−0·69	−1·16	−1·23
Equinox	−0·88	−0·92	−1·04	−1·09	−1·35	−2·02	−2·85	−4·15	−4·71	−3·71	−1·39	+1·81	+4·60	+5·83	+5·03	+3·63	+2·17	+1·26	+0·51	+0·45	+0·41	−0·24	−0·42	−0·94
Summer	−0·76	−1·04	−1·27	−2·11	−3·30	−4·87	−6·05	−6·17	−5·62	−3·80	−0·55	+3·18	+6·12	+7·40	+6·74	+5·01	+2·99	+1·64	+0·95	+0·83	+0·65	+0·21	+0·01	−0·20

INCLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	+0·24	+0·11	+0·12	−0·11	−0·13	−0·33	−0·31	−0·28	−0·11	+0·18	+0·42	+0·61	+0·36	−0·07	−0·16	−0·14	−0·22	−0·26	−0·24	−0·03	+0·02	+0·01	+0·13	+0·18
Feb.	−0·21	−0·10	−0·01	−0·16	−0·18	−0·40	−0·58	−0·59	−0·34	+0·28	+0·68	+0·95	+0·96	+0·98	+0·43	+0·28	+0·11	+0·06	−0·01	−0·34	−0·37	−0·59	−0·50	−0·36
Mar.	−0·21	−0·24	−0·16	−0·20	−0·11	−0·17	−0·15	−0·14	+0·39	+0·89	+1·22	+0·85	+0·70	+0·35	+0·36	+0·09	−0·11	−0·19	−0·22	−0·46	−0·50	−0·64	−0·72	−0·61
Apr.	−0·43	−0·37	−0·29	−0·30	−0·34	−0·39	−0·15	+0·14	+0·69	+1·41	+1·88	+1·95	+1·68	+1·12	+0·59	−0·32	−0·65	−1·04	−0·88	−0·82	−0·77	−0·87	−0·94	−0·90
May	−0·15	−0·45	−0·26	−0·15	−0·04	+0·20	+0·74	+1·22	+1·64	+1·98	+1·77	+1·26	+0·56	+0·22	−0·45	−0·72	−0·87	−1·04	−1·15	−1·35	−1·23	−0·84	−0·43	−0·46
June	−0·14	−0·28	−0·15	−0·27	−0·35	−0·12	+0·37	+0·99	+1·19	+1·69	+2·04	+1·66	+1·30	+1·04	+0·23	−0·37	−0·67	−1·17	−1·36	−1·30	−1·37	−1·07	−0·99	−0·87
July	−0·37	−0·14	−0·13	−0·13	−0·20	−0·01	+0·46	+1·01	+1·49	+2·05	+2·38	+2·11	+1·40	+0·31	−0·63	−1·24	−0·91	−0·74	−1·20	−1·31	−1·25	−1·19	−1·02	−0·75
Aug.	−0·66	−0·58	−0·50	−0·45	−0·34	−0·05	+0·43	+1·10	+1·84	+2·41	+2·14	+1·41	+0·79	+0·45	+0·12	−0·37	−0·55	−0·71	−0·85	−1·22	−1·15	−1·07	−1·05	−1·13
Sept.	−0·60	−0·36	−0·39	−0·20	−0·49	−0·65	−0·32	+0·19	+0·83	+1·62	+2·22	+2·11	+1·42	+0·88	+0·65	+0·20	−0·06	−0·76	−0·98	−1·01	−1·01	−0·99	−1·11	−1·20
Oct.	−0·69	−0·36	−0·36	−0·35	−0·44	−0·38	−0·34	−0·20	+0·56	+1·35	+1·97	+2·01	+1·69	+1·15	+0·62	+0·16	−0·11	−0·44	−0·84	−0·94	−1·11	−1·04	−1·09	−0·84
Nov.	−0·10	−0·12	−0·19	−0·22	−0·38	−0·45	−0·48	−0·46	−0·18	+0·55	+1·00	+1·17	+1·03	+0·69	+0·41	+0·16	−0·10	−0·25	−0·39	−0·44	−0·47	−0·42	−0·27	−0·08
Dec.	+0·01	+0·02	−0·05	−0·08	−0·09	−0·11	−0·13	+0·03	+0·22	+0·57	+0·81	+0·99	+0·80	+0·32	+0·20	+0·09	−0·13	−0·36	−0·57	−0·64	−0·56	−0·50	−0·43	−0·42
Year	−0·28	−0·24	−0·20	−0·22	−0·26	−0·24	−0·04	+0·25	+0·69	+1·25	+1·55	+1·42	+1·06	+0·62	+0·19	−0·18	−0·35	−0·57	−0·72	−0·82	−0·81	−0·77	−0·70	−0·62
Winter	−0·02	−0·02	−0·03	−0·14	−0·20	−0·32	−0·38	−0·33	−0·11	+0·40	+0·73	+0·93	+0·79	+0·48	+0·22	+0·10	−0·08	−0·20	−0·30	−0·36	−0·34	−0·38	−0·27	−0·17
Equinox	−0·49	−0·33	−0·30	−0·26	−0·35	−0·40	−0·24	−0·01	+0·62	+1·32	+1·82	+1·73	+1·37	+0·87	+0·56	+0·03	−0·23	−0·60	−0·73	−0·81	−0·85	−0·88	−0·96	−0·88
Summer	−0·33	−0·36	−0·26	−0·25	−0·23	+0·01	+0·50	+1·08	+1·54	+2·03	+2·09	+1·61	+1·01	+0·51	−0·18	−0·67	−0·76	−0·92	−1·14	−1·29	−1·25	−1·04	−0·87	−0·80

HORIZONTAL

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−3·1	−1·8	−1·9	+1·2	+1·6	+4·1	+3·6	+3·0	+0·5	−3·4	−6·5	−9·0	−5·7	+1·0	+2·7	+2·2	+3·4	+4·1	+4·0	+1·0	+0·5	+1·0	−0·7	−1·8
Feb.	+3·3	+1·2	−0·1	+1·7	+2·3	+5·4	+7·9	+7·7	+4·5	−4·4	−12·3	−16·9	−16·5	−15·2	−5·7	−2·7	−0·1	+0·8	+1·9	+6·5	+6·7	+9·8	+8·3	+5·9
Mar.	+3·2	+4·1	+2·8	+3·7	+2·4	+3·1	+2·4	+2·5	−5·4	−13·9	−20·6	−16·7	−14·6	−8·3	−6·0	−0·7	+2·4	+4·1	+5·4	+8·7	+8·8	+10·9	+11·8	+9·9
Apr.	+7·4	+6·2	+5·1	+5·8	+6·4	+7·0	+3·4	−1·4	−10·3	−23·0	−31·6	−33·4	−29·4	−20·2	−10·5	+4·4	+10·4	+17·6	+15·6	+14·6	+12·9	+14·0	+15·0	+14·0
May	+3·5	+7·0	+3·9	+3·0	+2·4	−1·1	−8·8	−16·6	−24·1	−31·6	−31·9	−26·4	−15·5	−7·6	+4·5	+11·2	+14·6	+18·5	+20·4	+22·8	+20·7	+14·8	+8·3	+8·0
June	+2·6	+4·8	+2·8	+4·6	+6·0	+3·5	−4·4	−14·4	−18·2	−26·2	−33·2	−30·0	−24·8	−19·4	−5·8	+4·8	+11·8	+20·7	+24·2	+22·6	+22·2	+17·2	+15·4	+13·2
July	+5·1	+2·1	+2·4	+3·3	+4·9	+2·1	−5·9	−15·3	−23·4	−32·1	−38·5	−35·9	−25·3	−7·7	+7·4	+18·7	+15·7	+14·1	+20·5	+21·9	+20·6	+18·9	+15·5	+10·9
Aug.	+11·2	+9·9	+8·8	+8·1	+6·7	+3·2	−3·9	−13·9	−25·4	−37·1	−36·6	−27·9	−18·2	−10·3	−2·0	+6·5	+10·1	+11·8	+12·7	+17·9	+17·6	+16·7	+16·6	+17·5
Sept.	+9·1	+5·3	+6·0	+3·7	+6·9	+9·9	+5·5	−1·7	−12·0	−24·9	−35·1	−35·5	−26·7	−16·9	−10·8	−1·7	+2·9	+13·9	+16·9	+16·9	+16·4	+16·1	+17·5	+18·3
Oct.	+9·0	+5·0	+5·6	+5·8	+7·4	+6·5	+5·8	+4·0	−7·4	−20·8	−31·2	−32·0	−27·2	−18·6	−9·4	−1·4	+2·8	+7·3	+13·0	+14·4	+16·6	+15·6	+16·4	+12·8
Nov.	+1·5	+1·7	+2·5	+3·1	+5·5	+6·4	+6·7	+6·1	+2·3	−8·1	−15·5	−18·3	−15·7	−10·7	−5·7	−1·3	+2·7	+4·8	+6·5	+7·1	+7·1	+6·3	+3·9	+1·1
Dec.	+0·3	0·0	+0·9	+1·2	+1·4	+1·5	+1·8	−0·6	−3·1	−8·8	−12·9	−15·4	−12·7	−6·0	−3·7	−0·8	+2·8	+6·1	+9·0	+9·8	+8·7	+7·6	+6·5	+6·4
Year	+4·4	+3·8	+3·2	+3·8	+4·5	+4·3	+1·2	−3·4	−10·2	−19·5	−25·5	−24·8	−19·4	−11·7	−3·7	+3·3	+6·6	+10·3	+12·5	+13·7	+13·2	+12·4	+11·2	+9·7
Winter	+0·5	+0·3	+0·3	+1·8	+2·7	+4·3	+5·0	+4·1	+1·1	−6·2	−11·8	−14·9	−12·7	−7·7	−3·1	−0·7	+2·2	+3·9	+5·3	+6·1	+5·7	+6·2	+4·5	+2·9
Equinox	+7·2	+5·1	+4·9	+4·7	+5·8	+6·6	+4·3	+0·9	−8·8	−20·7	−29·6	−29·4	−24·5	−16·0	−9·2	+0·1	+4·6	+10·7	+12·7	+13·7	+13·7	+14·1	+15·2	+13·7
Summer	+5·6	+5·9	+4·5	+4·7	+5·0	+1·9	−5·7	−15·1	−22·8	−31·7	−35·1	−30·1	−20·9	−11·3	+1·0	+10·3	+13·1	+16·3	+19·5	+21·3	+20·3	+16·9	+13·9	+12·4

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

167 ESKDALEMUIR

NORTH COMPONENT

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+3·0	+3·6	+3·0	+16·5	+21·4	+11·4	+22·0	+19·1	+11·8	+13·3	+6·1	−12·7	−18·9	−16·8	−4·7	−13·9	−2·2	−6·9	−8·7	−20·0	−18·6	−10·2	+8·6	−6·3
Feb.	−122·3	−58·5	−23·7	−15·0	+6·1	+15·7	+12·4	+5·2	+1·1	+11·4	−6·0	+3·1	−0·0	+0·3	+8·1	+9·8	+33·5	+32·6	+28·3	+21·3	+20·5	+5·5	+13·6	−3·0
Mar.	+6·3	−40·7	−9·8	−69·9	−0·8	+12·3	−1·0	−14·5	−56·7	−37·6	−59·4	−26·2	−8·3	+28·5	+83·6	+200·0	+88·5	+28·0	+8·4	+28·5	−16·1	−47·7	−58·5	−36·9
Apr.	−35·5	−4·3	−41·3	+28·9	+8·7	+29·3	+28·1	+1·3	−8·7	−16·9	−35·4	−32·3	−23·9	+9·3	+22·1	+74·5	+100·3	+62·1	+46·5	+37·0	+1·9	+3·0	−39·1	−215·4
May	+6·2	+1·1	+5·9	+6·3	+7·7	+6·1	−21·8	−38·2	−39·8	−19·3	−35·7	−37·7	−44·7	−38·5	−15·0	+14·3	+45·1	+68·0	+60·7	+31·3	+14·7	+2·3	+18·3	+2·6
June	+6·6	−0·2	+6·5	+10·7	+6·5	−5·9	−8·7	−16·5	−32·4	−38·8	−44·6	−41·6	−46·1	−19·4	+13·3	+29·2	+49·6	+50·3	+48·6	+33·3	+10·4	+0·2	+4·7	−15·5
July	−92·0	−49·1	−113·7	−142·4	−62·1	−83·8	−114·0	−22·3	+6·5	+1·3	−5·5	−13·1	−1·6	+16·9	+33·7	+55·1	+72·7	+97·5	+79·6	+126·2	+71·5	+44·2	+71·1	+23·3
Aug.	+20·0	+22·7	+9·5	+13·5	+4·5	+0·6	+9·8	−7·7	−22·9	−36·7	−54·5	−53·8	−35·1	−11·3	−1·3	+4·5	+34·3	+33·1	+21·1	+21·7	+14·0	+14·3	−2·2	+2·1
Sept.	+21·2	+25·4	−18·8	−57·0	−36·7	−56·1	−131·0	−86·3	−65·4	−54·3	−57·3	−39·8	−9·7	+83·5	+71·0	+120·6	+128·5	+88·9	+40·5	+15 9	+18·3	−12·5	+7·5	+3·6
Oct.	+4·8	+3·2	+8·3	+12·4	+20·6	+19·1	+18·8	+15·3	+0·1	−16·9	−20·9	−26·4	−27·3	−16·7	−10·7	−0·5	+0·8	+3·6	+1·5	−0·6	+4·2	+5·8	+5·9	−4·2
Nov.	+10·1	+8·4	+11·3	+10·9	+19·3	+23·8	+21·0	+15·5	+11·3	−7·3	−22·0	−27·4	−20·0	−28·5	−30·7	−23·3	−12·5	−7·9	−2·1	+4·1	+12·8	+4·4	+12·7	+16·0
Dec.	+9·8	+11·3	+9·1	+7·8	+10·0	+15·5	+16·8	+10·9	+5·2	−1·5	−5·9	−17·8	−27·1	−19·9	−12·0	−11·6	−8·3	+2·2	−2·6	+5·7	−6·0	+2·5	−0·2	+6·1
Year	−13·5	−6·5	−12·8	−14·8	+0·4	−1·0	−12·3	−9·9	−15·7	−16·9	−28·4	−27·2	−21·9	−1·1	+13·1	+38·2	+44·2	+37·6	+26·8	+25·4	+10·6	+1·0	+3·5	−18·9
Winter	−24·8	−8·7	−0·1	+5·0	+14·2	+16·6	+18·0	+12·6	+7·3	+4·0	−6·9	−13·7	−16·5	−16·2	−9·9	−9·7	+2·6	+5·0	+3·7	+2·8	+2·2	+0·5	+8·7	+3·2
Equinox	−0·8	−4·1	−15·4	−21·4	−2·1	+1·1	−21·3	−21·0	−32·6	−31·5	−43·2	−31·2	−17·3	+26·1	+41·5	+98·6	+79·5	+45·6	+24·2	+20·1	+2·1	−12·9	−21·0	−63·1
Summer	−14·8	−6·3	−22·9	−27·9	−10·9	−20·7	−33·7	−21·1	−22·1	−23·3	−35·1	−36·6	−31·9	−13·1	+7·7	+25·8	+50·4	+62·2	+52·5	+53·1	+27·6	+15·3	+23·0	+3·1

WEST COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−14·3	−7·4	+0·7	+0·1	−4·3	+10·4	+13·9	+20·8	+18·9	+15·1	+13·7	+11·7	+26·3	+17·1	+19·4	+16·9	+0·9	+11·4	−27·1	−34·4	−31·8	−37·2	−18·6	−22·1
Feb.	−73·6	−33·7	−27·6	−16·7	−17·7	+9·5	+7·8	+13·7	−2·0	+5·1	−1·7	−3·2	+29·4	+32·6	+36·5	+33·6	+27·7	+18·4	+20·9	+4·5	−2·2	−36·8	−1·3	−23·2
Mar.	−25·3	−58·4	−36·8	−47·0	−7·1	−0·5	+4·6	+5·0	−12·9	+11·1	+14·0	+18·5	−11 1	+15·4	+51·2	+72·0	+48·3	+38·5	+20·1	−18·7	−8·1	−24·9	−20·4	−27·5
Apr.	−46·5	−27·7	−34·3	−35·6	−15·0	+5·7	−1·6	+6·5	−6·4	−1·6	+8·7	+24·8	+36·3	+52·0	+45·8	+61·3	+41·9	+25·9	+28·7	+6·0	−5·8	−23·1	−39·9	−106·1
May	−8·4	−13·5	−2·9	−13·2	−19·7	−18·2	−16·8	−7·9	−14·4	−9·4	−10·6	+7·6	+17·3	+19·0	+25·4	+31·4	+28·3	+17·1	+8·8	−0·9	−1·1	−0·9	−1·0	−15·9
June	−10·2	−8·9	−11·9	−17·7	−28·6	−35·0	−41·0	−37·0	−31·2	−25·5	−8·1	+7·3	+30·3	+40·3	+52·4	+38·9	+45·7	+33·1	+31·5	+16·8	−2·5	−8·0	−16·5	−14·1
July	−36·6	−57·8	−64·3	−70·8	−28·0	−43·0	−15·0	−37·3	−31·7	−28·8	−1·3	+16·6	+35·2	+40·4	+49·9	+50·6	+40·8	+40·0	+29·6	+36·4	+38·9	+19·5	+4·1	+12·8
Aug.	−0·8	−13·4	−30·6	−14·2	−2·9	−8·9	−17·9	−34·7	−31·5	−26·2	−12·8	+3·6	+23·2	+39·3	+44·9	+39·2	+43·3	+17·9	+3·9	+3·6	−7·1	+0·3	−6·8	−11·5
Sept.	−5·1	−19·3	−25·5	−25·9	−20·5	−13·5	−14·9	−33·7	−34·4	−11·8	−4·9	−10·1	+25·7	+44·6	+68·3	+89·2	+56·0	+26·9	+13·2	−25·3	−14·6	−24·6	−37·3	−29·4
Oct.	−29·7	−15·8	−35·6	−27·1	−11·6	+7·5	+2·6	+0·6	−5·7	−2·4	+8·2	+21·8	+30·8	+36·0	+35·4	+30·6	+18·1	+13·9	+12·7	−3·3	−13·4	−29·1	−21·4	−23·0
Nov.	−10·5	−11·3	−6·9	−4·8	+0·8	−0·8	+0·8	+7·3	+2·6	−1·0	+2·1	+16·0	+27·1	+28·5	+19·5	+8·0	+15·2	+5·1	−6·9	−8·0	−10·3	−16·4	−30·3	−25·9
Dec.	−9·4	−5·9	−3·5	−1·9	+0·3	+1·0	−0·1	+0·8	+0·6	−2·6	+2·5	+9·5	+14·7	+19·5	+22·8	+14·2	+12·3	+4·1	+0·6	−12·5	−9·4	−16·6	−24·0	−17·3
Year	−22·5	−22·7	−23·2	−22·9	−12·9	−4·9	−6·5	−7·9	−12·3	−6·5	+0·8	+10·3	+23·7	+32·1	+39·3	+40·5	+31·5	+21·0	+11·3	−3·0	−5·6	−16·5	−17·8	−25·2
Winter	−26·9	−14·5	−9·3	−5·8	−5·3	+5·0	+5·6	+10·7	+4·9	+4·1	+4·2	+8·5	+24·4	+24·5	+24·6	+18·2	+14·0	+9·7	−3·1	−12·6	−13·5	−26·8	−18·5	−22·1
Equinox	−26·6	−30·3	−33·1	−33·9	−13·5	+6·6	−2·3	−5·4	−14·9	−1·2	+6·5	+13·7	+20·4	+37·0	+50·1	+63·2	+41·0	+26·3	+18·7	−10·4	−10·5	−25·4	−29·7	−46·4
Summer	−14·0	−23·4	−27·5	−29·0	−19·8	−26·3	−22·7	−29·2	−27·2	−22·5	−8·2	+8·8	+26·6	+34·8	+43·2	+40·0	+39·5	+27·0	+18·4	+14·0	+7·0	+2·7	−5·1	−7·2

VERTICAL COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−28·8	−29·8	−36·6	−37·8	−32·4	−25·9	−24·0	−19·6	−14·8	−8·0	−4·0	+2·4	+12·2	+15·4	+17·8	+45·2	+59·0	+61·5	+57·4	+35·4	+14·8	−9·4	−25·8	−24·2
Feb.	−71·7	−69·9	−68·9	−65·3	−54·3	−39·9	−27·3	−17·3	−10·5	−2·9	+7·5	+19·5	+19·9	+25·3	+48·1	+59·7	+74·5	+69·5	+67·1	+50·9	+46·3	+9·9	−18·5	−51·7
Mar.	−24·3	−96·8	−103·8	−131·1	−100·4	−41·4	−9·3	+0·2	+9·2	+6·1	+26·8	+47·8	−7·1	−52·6	−2·8	+118·3	+147·4	+100·6	+93·9	+87·8	+51·8	−32·7	−34·8	−52·8
Apr.	−88·8	−47·0	−63·2	−79·2	−63·8	−51·2	−29·0	−30·8	−26·8	−19·4	−7·4	+6·6	+17·2	+52·6	+72·2	+102·6	+98·2	+70·0	+66·8	+55·0	+15·6	−1·8	−28·4	−20·0
May	−8·8	−21·3	−29·8	−29·2	−52·6	−41·1	−30·2	−32·6	−27·8	−18·3	−11·0	−7·0	+3·4	+14·7	+26·4	+42·0	+56·2	+61·3	+46·4	+34·6	+25·8	+18·7	−6·4	−13·4
June	−19·0	−35·9	−42·0	−34·7	−25·0	−17·7	−18·0	−18·5	−19·4	−19·7	−19·6	−22·7	−13·4	+0·7	+26·4	+47·7	+66·2	+68·5	+48·6	+37·1	+22·4	+6·9	−11·2	−7·7
July	−66·2	−60·2	−29·3	−40·8	−83·2	−75·6	−97·6	−39·8	+2·1	+7·8	+10·6	+12·8	+8 0	+13·4	+21·3	+32·0	+48·2	+58·6	+61·0	+57·8	+61·3	+47·2	+45·2	+5·4
Aug.	−18·4	−26·4	−28·2	−31·8	−35·2	−49·9	−35·8	−16·0	−7·4	−6·0	−5·0	−10·0	−8·8	+6·2	+17·0	+32·2	+42·6	+59·1	+53·2	+38·2	+28·0	+4·4	+0·4	−2·4
Sept.	−54·4	−91·3	−160·0	−165·1	−160·4	−159·9	−136·8	−78·1	−25·0	−5·9	+9·6	+35·3	+68·6	+129·3	+178·0	+162·7	+154·8	+143·7	+197·6	+66·3	+39·0	−3·7	−16·6	−27·7
Oct.	−30·9	−31·2	−31·9	−21·3	−16·9	−15·2	−18·3	−15·1	−8·3	−4·8	−2·7	−1·7	+7·7	+19·6	+25·3	+25·9	+33·3	+30·4	+28·3	+29·5	+23·9	+13·6	−7·7	−31·5
Nov.	−5·7	−8·4	−12·1	−13·5	−15·5	−16·6	−14·7	−14·7	−12·7	−10·4	−9·3	−5·9	+0·1	+10·2	+22·1	+29·9	+29·9	+29·2	+18·9	+12·1	+5·7	−1·4	−4·5	−12·7
Dec.	−3·9	−6·2	−7·3	−6·9	−6·9	−8·0	−9·1	−10·3	−9·5	−9·2	−9·1	−8·5	−4·5	+0·2	+6·3	+14·9	+19·7	+15·0	+11·5	+10·5	+10·1	+5·8	+4·3	+1·1
Year	−35·1	−43·7	−51·1	−54·7	−53·9	−45·2	−37·5	−24·4	−12·6	−7·6	−1·1	+5·7	+8·6	+19·6	+38·2	+59·4	+69·2	+63·9	+54·2	+42·9	+28·7	+4·8	−8·7	−19·8
Winter	−27·5	−28·6	−31·2	−30·9	−27·3	−22·6	−18·8	−15·5	−11·9	−7·6	−3·7	+1·9	+6·9	+12·8	+23·6	+37·4	+45·8	+43·8	+38·7	+27·2	+19·2	+1·2	−11·1	−21·9
Equinox	−49·6	−66·6	−89·7	−99·2	−85·4	−66·9	−48·3	−30·9	−12·7	−6·0	+6·6	+22·0	+21·6	+37·2	+68·2	+102·4	+108·4	+86·2	+71·7	+59·7	+32·6	−6·2	−21·9	−33·0
Summer	−28·1	−35·9	−32·3	−34·1	−49·0	−46·1	−45·4	−26·7	−13·1	−9·1	−6·3	−6·7	−2·7	+8·7	+22·8	+38·5	+53·3	+61·9	+52·3	+41·9	+34·4	+19·3	+7·0	−4·5

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

168 ESKDALEMUIR

DECLINATION (measured positive towards the west)

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-3·04	-1·66	0·00	-0·70	-1·82	+1·61	+1·86	+3·40	+3·32	+2·50	+2·52	+2·94	*+6·18*	+4·22	+4·16	+4·04	+0·28	+2·61	-5·14	-6·12	-5·66	*-7·12*	-4·16	-4·22
Feb.	*-9·62*	-4·29	-4·58	-2·75	-3·87	+1·24	+1·05	+2·57	+0·46	+0·53	-0·08	-0·79	+5·98	+6·63	*+7·08*	+6·41	+4·17	+2·32	+3·01	-0·01	-1·36	-7·73	-0·86	-4·59
Mar.	-5·42	*-10·13*	-7·07	-6·52	-1·41	-0·63	+0·98	+1·65	-0·15	+3·90	+5·45	+4·91	-1·90	+1·89	*+6·77*	+5·92	+5·97	+6·63	+3·72	-5·05	-0·95	-2·98	-1·59	-3·99
Apr.	-7·92	-5·45	-5·18	-8·52	-3·44	-0·13	-1·56	+1·28	-0·92	+0·41	+3·32	+6·46	+8·44	*+10·19*	+8·36	+9·24	+4·16	+2·57	+3·82	-0·40	-1·26	-4·85	-6·42	*-12·20*
May	-1·97	-2·79	-0·85	-2·95	*-4·35*	-3·97	-2·47	+0·07	-1·19	-1·07	-0·59	+3·19	+5·47	*+5·55*	*+5·81*	+5·75	+3·79	+0·51	-0·87	-1·55	-0·87	-0·29	-1·01	-3·35
June	-2·37	-1·80	-2·70	-4·07	-6·10	-6·86	*-7·95*	-6·80	-4·94	-3·49	+0·30	+3·30	+8·17	+9·04	*+10·08*	+6·63	+7·12	+4·54	+4·29	+1·96	-0·96	-1·63	-3·56	-2·20
July	-3·45	*-9·64*	-8·15	-8·23	-3·01	-5·12	+1·91	-6·63	-6·75	-5·94	-0·03	+3·95	+7·25	+7·50	*+8·71*	+7·91	+5·15	+3·90	+2·57	+1·93	+4·81	+2·04	-2·27	+1·59
Aug.	-1·03	-3·71	-6·64	-3·47	-0·79	-1·83	-4·07	*-6·73*	-5·42	-3·73	-0·23	+3·07	+6·25	+8·49	*+9·18*	+7·79	+7·33	+2·21	-0·13	-0·21	-2·06	-0·55	-1·29	-2·43
Sept.	-1·96	-5·05	-4·40	-2·81	-2·59	+5·20	+2·67	-3·11	-4·18	-0·03	+1·50	-0·33	+5·68	+5·47	+10·86	*+12·95*	+5·83	+1·62	+0·93	-5·87	-3·78	-4·47	*-7·96*	-6·17
Oct.	-6·26	-3·36	*-7·61*	-6·06	-3·26	+0·70	-0·28	-0·54	-1·17	+0·24	+2·58	+5·58	+7·46	*+8·06*	+7·67	+6·24	+3·64	+2·68	+2·52	-0·64	-2·91	-6·16	-4·62	-4·50
Nov.	-2·57	-2·67	-1·89	-1·45	-0·67	-1·20	-0·75	+0·81	+0·03	+0·11	+1·39	+4·45	+6·39	*+7·03*	+5·31	+2·65	+3·63	+1·38	-1·31	-1·81	-2·65	-3·53	*-6·71*	-5·97
Dec.	-2·33	-1·70	-1·11	-0·72	-0·38	-0·47	-0·74	-0·30	-0·11	-0·46	+0·77	+2·70	+4·17	+4·84	*+5·17*	+3·40	+2·86	+0·73	+0·24	-2·78	-1·65	-3·48	*-4·87*	-3·78
Year	-3·99	*-4·35*	-4·18	-4·02	-2·64	-0·95	-0·78	-1·19	-1·83	-0·59	+1·41	+3·29	+5·79	+6·58	*+7·43*	+6·58	+4·49	+2·64	+1·14	-1·71	-1·61	-3·40	-3·78	-4·32
Winter	-4·39	-2·58	-1·89	-1·40	-1·69	+0·29	+0·35	+1·62	+0·69	+0·67	+1·15	+2·33	*+5·68*	*+5·68*	+5·43	+4·13	+2·73	+1·76	-0·80	-2·68	-2·83	*-5·47*	-4·15	-4·64
Equinox	-5·39	-6·00	-6·07	-5·98	-2·67	+1·29	+0·45	-0·18	-1·61	+1·13	+3·21	+4·15	+4·92	+6·40	+8·41	*+8·59*	+4·90	+3·37	+2·75	-2·99	-2·23	-4·61	-5·15	*-6·71*
Summer	-2·21	-4·49	-4·59	-4·68	-3·56	-4·45	-3·15	*-5·02*	-4·57	-3·56	-0·14	+3·38	+6·79	+7·65	*+8·45*	+7·02	+5·85	+2·79	+1·47	+0·53	+0·23	-0·11	-2·03	-1·60

INCLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-0·71	-0·87	-1·12	-2·03	-2·15	-1·54	*-2·24*	-2·04	-1·41	-1·29	-0·70	+0·73	+1·17	+1·25	+0·47	+1·79	+1·60	+1·81	+2·38	*+2·68*	+2·05	+0·97	-0·94	+0·13
Feb.	+7·*32*	+2·59	+0·25	-0·39	-1·49	*-2·16*	-1·61	-0·97	-0·30	-0·89	+0·61	+0·32	+0·08	+0·14	+0·14	+0·36	-0·75	-0·68	-0·49	-0·21	-0·17	-0·41	-1·33	-0·76
Mar.	-0·66	+1·11	-1·41	+2·02	-2·33	-1·83	-0·23	+0·89	+4·14	+2·47	*+4·38*	+2·65	+0·53	-3·40	-6·30	*-11·26*	-2·86	+0·10	+1·49	+0·57	+2·46	+2·68	+3·28	+1·51
Apr.	+0·80	-0·49	+1·64	-3·36	-1·95	-3·28	-2·55	-0·94	0·00	+0·66	+2·03	+1·94	+1·49	-0·04	-0·31	-3·23	*-4·76*	-2·73	-1·81	-1·16	+0·35	+0·08	+2·44	*+15·20*
May	-0·51	-0·41	-1·08	-0·95	-1·53	-1·16	+0·92	+1·82	+2·13	+0·95	+2·23	+2·20	*+2·79*	+2·63	+1·28	-0·35	-1·98	*-3·21*	-2·97	-1·19	-0·31	+0·33	-1·35	-0·28
June	-0·76	-0·75	-1·30	-1·31	-0·64	+0·44	+0·71	+1·15	+2·09	+2·43	*+2·57*	+2·07	+2·28	+0·73	-0·96	-1·29	-2·27	-2·08	*-2·44*	-1·51	-0·09	+0·27	-0·35	+1·03
July	+4·94	+2·56	+7·67	*+9·37*	+2·43	+4·25	+5·30	+1·01	+0·07	+0·51	+0·64	+0·95	-0·19	-1·35	-2·40	-3·55	-4·17	-5·54	-4·15	*-7·40*	-3·74	-2·02	-3·62	-1·58
Aug.	-1·76	*-1·96*	-0·89	-1·48	-1·13	-1·15	-1·28	+0·60	+1·77	+2·64	*+3·65*	+3·24	+1·76	+0·34	-0·13	-0·05	-1·81	-0·97	-0·12	-0·54	-0·13	-0·83	+0·25	-0·03
Sept.	-2·68	-3·67	-2·37	+0·03	-1·27	-0·45	*+5·45*	+4·22	+4·17	+3·60	+4·09	+3·65	+1·98	-2·93	-1·23	-5·17	*-5·42*	-2·67	-0·44	+0·96	-0·04	+1·08	-0·38	-0·51
Oct.	-0·67	-0·76	-0·84	-0·97	-1·61	*-1·74*	-1·73	-1·39	-0·13	+1·03	+1·19	+1·39	*+1·56*	+1·08	+0·84	+0·24	+0·52	+0·32	+0·43	+0·82	+0·51	+0·36	-0·28	-0·18
Nov.	-0·66	-0·61	-0·95	-0·99	-1·67	*-1·97*	-1·76	-1·49	-1·10	+0·23	+1·19	+1·44	+0·94	+1·73	*+2·30*	+2·16	+1·35	+1·18	+0·71	+0·15	-0·56	-0·10	-0·52	-1·01
Dec.	-0·61	-0·81	-0·73	-0·66	-0·83	-1·24	*-1·33*	-0·98	-0·59	-0·09	+0·12	+0·83	*+1·47*	+1·04	+0·63	+0·94	+0·87	+0·17	+0·45	+0·06	+0·78	+0·21	+0·46	-0·13
Year	+0·34	-0·34	-0·09	-0·06	-1·18	-0·99	-0·03	+0·16	+0·90	+1·02	*+1·83*	+1·79	+1·32	+0·10	-0·47	-1·62	*-1·64*	-1·19	-0·58	-0·57	+0·09	+0·29	-0·20	+1·11
Winter	*+1·33*	+0·07	-0·64	-1·01	-1·54	*-1·73*	*-1·73*	-1·37	-0·85	-0·51	+0·31	+0·83	+0·91	+1·04	+0·89	+1·31	+0·77	+0·62	+0·76	+0·67	+0·52	+0·37	-0·59	-0·44
Equinox	-0·80	-0·95	-0·74	-0·57	-1·79	-1·83	+0·24	+0·70	+2·04	+1·94	+2·92	+2·41	+1·39	-1·32	-1·75	*-4·85*	-3·13	-1·24	-0·08	+0·30	+0·82	+1·05	+1·26	*+4·00*
Summer	+0·48	-0·14	+1·10	+1·41	-0·22	+0·60	+1·41	+1·14	+1·51	+1·63	*+2·27*	+2·12	+1·66	+0·59	-0·55	-1·31	-2·56	*-2·95*	-2·42	-2·66	-1·07	-0·57	-1·27	-0·21

HORIZONTAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	-0·1	+2·0	+3·1	+16·2	+20·0	+13·3	+24·4	*+23·0*	+15·5	+16·2	+8·9	-10·0	-12·9	-12·8	-0·5	-10·0	-2·0	-4·3	-14·2	*-26·8*	-24·9	-17·8	+4·5	-10·8
Feb.	*-135·0*	-64·2	-29·0	-18·2	+2·2	+17·3	+13·8	+8·0	+0·6	+12·2	-6·2	+2·4	+6·2	+7·2	+15·6	+16·6	*+38·6*	+35·7	+32·0	+21·8	+19·6	-2·4	+13·0	-7·8
Mar.	+0·8	-52·1	-17·3	*-78·2*	-2·3	+11·9	0·0	-13·1	-58·1	-34·4	-55·1	-21·7	-10·4	+31·1	+92·5	*+210·6*	+96·7	+35·5	+12·4	+23·9	-17·5	-51·8	-61·5	-41·9
Apr.	-44·5	-10·0	-47·6	+20·7	+5·4	+29·8	+27·1	+2·6	-9·8	-16·9	-32·8	-26·4	-15·7	+20·0	+31·2	+85·7	*+106·8*	+66·2	+51·5	+37·4	+0·6	-1·9	-46·6	*-232·8*
May	+4·3	-1·8	+5·1	+3·4	+3·4	+2·1	-24·8	-39·0	*-41·9*	-20·8	-37·1	-35·2	-40·1	-33·6	-9·3	+20·6	+50·0	*+70·1*	+61·2	+30·4	+14·1	+2·0	+17·7	-0·8
June	+4·3	-2·1	+3·8	+6·7	+0·3	-13·1	-17·1	-23·9	-38·2	-43·3	*-45·3*	-39·1	-38·7	-10·5	+24·0	+36·7	*+58·1*	+56·1	+54·1	+36·1	+9·6	-1·5	+1·1	-18·1
July	-97·6	-60·1	-124·6	-154·0	-66·6	-90·9	-114·6	-29·6	-0·2	-4·7	-5·6	-9·4	+5·8	+24·9	+43·4	+64·4	+79·6	+103·7	+84·0	+131·0	+78·0	+47·3	+70·4	+25·4
Aug.	+19·4	+19·4	+2·8	+10·2	+3·8	-1·3	+5·8	-14·8	-29·0	-41·4	*-56·0*	-51·8	-29·4	-2·8	+8·2	+12·6	*+42·6*	+36·1	+21·4	+22·0	+12·2	+14·0	-3·6	-0·4
Sept.	+19·7	+20·8	-23·7	-61·2	-40·2	-52·1	*-131·2*	-91·4	-71·1	-55·6	-57·1	-41·0	-4·1	+91·0	+83·7	+136·6	*+137·4*	+92·5	+42·4	+10·2	+14·9	-17·4	-0·5	-2·6
Oct.	-1·5	-0·2	+0·7	+6·5	+17·7	+20·2	+18·9	+15·1	-1·1	-17·0	-18·7	*-21·3*	-20·3	-8·8	-3·1	+5·9	+4·5	+6·4	+4·1	-1·3	+1·3	-0·4	+1·3	-8·9
Nov.	+7·7	+5·9	+9·6	+9·7	+19·1	*+23·1*	+20·7	+16·7	+11·6	-7·3	-21·1	-23·5	-13·9	-21·9	*-26·0*	-21·1	-9·1	-6·7	-3·5	+2·3	+10·4	+0·9	+6·1	+10·3
Dec.	+7·6	+9·8	+8·2	+7·2	+9·8	+15·4	*+16·4*	+10·8	+5·2	-2·0	-5·2	-15·4	*-23·4*	-15·4	-7·0	-8·4	-5·6	+3·0	-2·4	+3·0	-7·8	-1·0	-5·2	+2·4
Year	-17·9	-11·1	-17·4	-19·3	-2·3	-2·0	-13·4	-11·3	-18·0	-17·9	*-27·6*	-24·4	-16·4	+5·7	+21·1	+45·9	*+49·8*	+41·2	+28·6	+24·2	+9·2	-2·5	-0·3	-23·8
Winter	*-29·9*	-11·6	-2·0	+3·7	+12·8	+17·3	*+18·8*	+14·6	+8·3	+4·8	-5·9	-11·6	-11·0	-10·7	-4·5	-5·7	+5·5	+6·9	+3·0	+0·1	-0·7	-5·1	+4·6	-1·5
Equinox	-6·4	-10·4	-22·0	-28·1	-4·9	+2·5	-21·3	-21·7	-35·0	-31·0	-40·9	-27·6	-12·6	+33·3	+51·1	*+109·7*	+86·3	+50·1	+27·6	+17·5	-0·2	-17·9	-26·8	*-71·5*
Summer	-17·4	-11·1	-28·2	-33·4	-14·8	-25·8	*-37·7*	-26·8	-27·3	-27·5	-36·0	-33·9	-25·6	-5·5	+16·6	+33·6	+57·6	*+66·5*	+55·2	+54·9	+28·5	+15·5	+21·4	+1·5

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1946

The ranges are derived from the diurnal inequalities printed in Tables 163 to 168

169 ESKDALEMUIR

	All days			Quiet days			Disturbed days			All days			Quiet days			Disturbed days		
	N	*W*	*V*	*N*	*W*	*V*	*N*	*W*	*V*	*D*	*I*	*H*	*D*	*I*	*H*	*D*	*I*	*H*
	γ	γ	γ	γ	γ	γ	γ	γ	γ	′	′	γ	′	′	γ	′	′	γ
Jan.	21·9	29·0	22·9	14·4	20·6	6·6	42·0	63·5	99·3	6·43	1·49	19·7	4·30	0·94	13·1	13·30	4·92	51·2
Feb.	29·9	33·7	37·8	29·3	29·6	12·4	155·8	110·1	146·2	6·51	1·81	33·0	6·82	1·57	26·7	16·70	9·48	173·6
Mar.	59·8	51·2	65·7	31·8	39·2	17·0	269·9	130·4	278·5	9·76	3·73	66·0	8·48	1·94	32·4	16·90	15·64	288·8
Apr.	61·4	58·2	42·2	48·9	54·6	19·2	315·7	167·4	191·4	12·39	3·34	60·7	12·05	2·99	51·0	22·39	19·96	339·6
May	68·1	60·1	41·3	54·3	70·3	30·0	112·7	51·1	113·9	11·99	3·77	69·9	14·62	3·33	54·7	10·16	6·00	112·0
June	66·8	65·5	41·7	53·2	61·1	25·8	96·4	93·4	110·5	13·12	3·98	71·7	12·52	3·41	57·4	18·03	5·01	103·4
July	70·5	63·0	44·7	57·0	64·8	20·8	268·6	121·4	158·9	12·25	4·27	74·1	13·88	3·69	60·4	18·35	16·77	285·0
Aug.	59·4	66·8	32·8	53·5	67·8	25·6	88·8	79·6	109·0	13·78	3·55	60·9	14·02	3·63	55·0	15·91	5·61	98·6
Sept.	66·5	62·0	79·9	55·8	56·0	22·2	259·5	126·5	343·1	11·76	3·65	70·4	12·14	3·42	53·8	20·91	10·87	268·6
Oct.	45·1	45·1	23·4	49·6	42·2	9·4	47·9	71·6	65·2	9·97	2·75	40·8	9·46	3·12	48·6	15·67	3·30	41·5
Nov.	30·7	33·0	16·2	26·9	22·1	6·0	54·5	58·8	46·5	7·77	1·97	28·1	5·10	1·65	25·4	13·74	4·27	49·1
Dec.	26·8	27·6	13·9	24·8	22·9	6·1	43·9	46·8	30·0	6·38	1·63	23·2	4·76	1·63	25·2	10·04	2·80	39·8
Year	44·3	45·2	34·3	39·1	44·1	14·8	72·6	65·7	123·9	9·26	2·37	43·5	9·46	2·37	39·2	11·78	3·47	77·4
Winter	23·6	29·0	22·2	22·3	22·4	5·6	42·8	51·5	77·0	6·58	1·60	21·8	4·84	1·31	21·1	11·15	3·06	48·7
Equinox	49·4	53·3	51·8	45·9	48·1	16·4	161·7	109·6	207·6	10·71	2·76	51·9	10·54	2·78	44·8	15·30	8·85	181·2
Summer	64·7	62·2	37·5	53·8	64·6	24·1	98·8	72·4	110·9	12·61	8·43	67·5	13·57	3·38	56·4	13·47	5·22	104·2

NON-CYCLIC CHANGE

170 ESKDALEMUIR

	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	0·0	−0·01	+0·1	+0·8	+0·05	+0·5	−13·1	−0·28	+1·2
Feb.	+0·1	−0·02	+0·3	+3·6	+0·89	−0·2	−1·3	+4·21	+16·6
Mar.	−1·8	−0·32	−0·2	+6·0	+0·23	+1·0	−54·9	−0·52	−46·2
Apr.	+1·7	+0·26	+0·9	+4·4	+0·14	−1·6	−24·5	−0·91	+1·9
May	+0·4	−0·03	−0·2	+1·9	−0·69	−2·0	−8·4	−1·27	−4·4
June	−0·2	+0·03	+0·2	+9·0	+0·26	−1·5	−22·2	+0·38	+4·8
July	−0·2	0·00	−0·1	+1·5	−0·14	+0·2	−25·2	−0·25	−0·4
Aug.	−0·4	−0·14	+0·2	+5·4	+0·40	−1·5	−17·1	−0·92	+4·3
Sept.	0·0	+0·01	+0·1	+8·4	+1·04	−0·1	−38·1	−2·94	−15·2
Oct.	−0·5	−0·13	−0·1	+0·9	−0·78	+3·7	−6·1	+1·50	−4·2
Nov.	+0·7	+0·01	−0·2	−0·7	−0·57	−0·3	−4·4	−2·34	−9·7
Dec.	+0·5	+0·08	−0·1	+5·2	+0·31	−0·8	−7·4	−0·77	+4·5
Year	0·0	−0·02	+0·1	+3·9	+0·09	−0·2	−18·6	−0·34	−3·9
Winter	+0·3	+0·01	0·0	+2·2	+0·17	−0·2	−6·5	+0·21	+3·1
Equinox	−0·1	−0·05	+0·2	+4·9	+0·16	+0·7	−30·9	−0·72	−15·9
Summer	−0·1	−0·03	0·0	+4·5	−0·04	−1·2	−18·2	−0·51	+1·1

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS

For all, *a*, quiet, *q*, and disturbed, *d*, days for *H*, *D* and *V* and for all days for *N*, *W*, *I* and *T*

171 ESKDALEMUIR

	Horizontal force			Declination (west)			Vertical force			North component all days	West component all days	Inclination (north) all days	Total force all days
	a	*q*	*d*	*a*	*q*	*d*	*a*	*q*	*d*				
	16,000γ +			12° +			44,000γ +						
	γ	γ	γ	′	′	′	γ	γ	γ	γ	γ	° ′	γ
Jan.	523	529	510	9·7	9·8	9·0	1116	1116	1116	16152	3481	69 53·1	48046
Feb.	511	521	485	9·6	9·6	10·4	1124	1121	1129	16140	3478	69 54·1	48050
Mar.	505	518	486	8·4	9·0	7·0	1125	1127	1108	16136	3471	69 54·6	48049
Apr.	504	518	479	7·4	7·6	7·5	1143	1137	1149	16136	3466	69 55·0	48065
May	523	528	520	7·1	7·2	7·1	1133	1134	1133	16155	3469	69 53·6	48062
June	531	527	535	6·5	6·4	7·1	1134	1135	1139	16163	3467	69 53·1	48066
July	521	528	394	5·5	5·8	5·2	1134	1137	1122	16155	3461	69 53·7	48063
Aug.	522	524	520	4·9	4·9	5·4	1135	1131	1137	16156	3458	69 53·6	48063
Sept.	506	514	469	4·1	4·0	5·1	1140	1138	1143	16141	3451	69 54·9	48063
Oct.	514	522	506	3·5	3·8	2·2	1143	1140	1138	16150	3450	69 54·4	48069
Nov.	519	527	510	2·3	2·2	2·6	1142	1138	1148	16156	3445	69 54·0	48069
Dec.	524	525	522	1·6	1·5	2·1	1139	1138	1141	16161	3443	69 53·6	48068
Year	517	523	503	5·9	6·0	5·9	1134	1133	1134	16150	3462	69 54·0	48061

HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE

Values of a_n, b_n in the series $\Sigma\,(a_n\cos 15nt + b_n\sin 15nt)$, t being reckoned in hours from midnight G.M.T.

Longitude of Eskdalemuir Observatory, 3°12′W.

172 ESKDALEMUIR

	North component								West component								Vertical component							
	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
												ALL DAYS												
Jan.	+3·2	+4·7	−4·1	−1·7	+2·4	−1·2	−0·4	−0·5	−10·4	−0·7	−0·2	+4·9	+0·1	−0·8	+0·7	+1·6	−2·0	−9·9	−3·2	+0·2	+0·3	+1·2	+0·3	−0·4
Feb.	+2·4	−3·8	−8·6	−3·3	+0·3	−2·6	−1·5	−1·4	−8·5	−6·3	−3·1	+5·2	−1·5	−3·2	+0·5	+1·7	+6·5	−15·3	−4·3	−1·8	+0·6	+0·6	−1·2	+0·1
Mar.	+7·1	−10·3	−11·9	+3·8	+6·3	−5·1	−1·8	+0·1	−14·2	−15·5	0·0	+8·9	−0·4	−5·3	+0·6	−0·3	−9·0	−20·3	−11·3	−6·1	+4·5	+2·8	+0·7	−2·6
Apr.	+12·4	−7·8	−20·0	+2·5	+2·1	−0·5	−3·3	+1·7	−13·4	−17·3	+0·1	+12·0	−3·5	−4·9	+0·7	+2·4	−4·5	−15·6	−7·9	+0·2	+2·3	−0·8	−0·5	−0·6
May	+20·1	−14·0	−15·2	+2·5	+1·5	+2·8	+1·1	−1·6	−8·1	−20·8	+4·0	+11·0	−2·7	−3·1	+1·4	+0·9	+3·5	−17·9	−6·9	−0·6	+1·9	+1·2	−0·5	−0·6
June	+19·1	−14·3	−16·3	+3·1	+0·5	+0·8	+0·4	−1·1	−5·5	−24·7	+2·8	+11·7	−2·2	−2·4	−0·1	+0·9	+1·3	−15·1	−9·2	−2·1	+2·3	+0·5	+0·7	−1·0
July	+12·0	−25·3	−12·5	−2·8	+3·1	−2·9	−1·0	−2·2	−7·6	−26·5	+4·7	+6·9	−2·5	−5·2	−0·4	+0·3	+0·7	−18·6	−6·3	−3·4	+1·0	+1·7	−2·6	−1·6
Aug.	+20·6	−10·1	−11·8	+3·6	+1·7	−1·8	+0·3	+1·1	−7·4	−19·8	+7·2	+11·8	−4·3	−5·9	+1·1	+0·8	+3·1	−8·4	−7·9	−1·1	+3·1	+1·2	−1·3	−0·2
Sept.	+14·3	−16·9	−10·0	+6·8	+6·3	−0·7	+0·6	−1·7	−13·1	−16·1	+1·1	+14·3	+0·1	−6·8	+0·5	−1·1	−14·1	−31·9	−5·9	−2·1	+4·8	−0·5	−0·8	−0·6
Oct.	+17·5	+1·9	−10·4	−0·6	+3·3	−3·2	−0·2	+1·0	−9·6	−10·0	+1·9	+9·0	−2·8	−5·5	+3·0	+2·2	−2·5	−9·5	−4·9	−0·4	+1·1	0·0	−2·3	−0·1
Nov.	+11·1	+2·2	−7·3	−2·5	+2·1	−1·5	+0·3	+0·6	−9·3	−6·5	−2·0	+6·2	−2·2	−2·2	+1·2	+2·5	−0·6	−7·2	−1·1	−0·5	+1·3	−0·2	−0·7	−0·1
Dec.	+8·1	+3·3	−6·1	−1·5	+1·6	−0·3	+0·2	+0·3	−8·3	−5·3	−1·4	+5·1	−1·5	−2·0	+0·3	+1·8	+1·7	−6·4	−1·0	−0·6	+1·3	+0·3	−0·5	−0·5
Year	+12·3	−7·5	−11·2	+0·8	+2·6	−1·3	−0·5	−0·3	−9·6	−14·1	+1·3	+8·9	−2·0	−3·9	+0·8	+1·1	−2·4	−14·7	−5·8	−1·5	+2·0	+0·7	−0·7	−0·7
Winter	+6·2	+1·6	−6·5	−2·2	+1·6	−1·4	−0·4	−0·2	−9·1	−4·7	−1·7	+5·3	−1·3	−2·1	+0·7	+1·9	−1·9	−9·7	−2·4	−0·7	+0·9	+0·5	−0·5	−0·2
Equinox	+12·9	−8·2	−13·1	+3·1	+4·5	−2·3	−1·2	+0·3	−12·6	−14·7	+0·7	+11·0	−1·6	−5·6	+1·2	+0·8	−7·5	−19·3	−7·5	−2·1	+3·2	+0·4	−0·7	−1·0
Summer	+17·9	−15·9	−13·9	+1·6	+1·7	−0·2	+0·2	−0·9	−7·1	−22·9	+4·7	+10·3	−3·0	−4·1	+0·5	+0·7	+2·2	−15·0	−7·6	−1·8	+2·1	+1·2	−0·9	−0·9
												QUIET DAYS												
Year	+14·3	−2·6	−8·7	+0·1	+2·6	−1·5	−0·4	+0·6	−3·5	−13·0	+3·5	+8·6	−3·3	−3·8	+0·5	+1·4	+3·9	−1·3	−4·0	−0·2	+1·7	+0·1	−0·7	−0·2
Winter	+6·9	+0·8	−5·5	−1·8	+2·5	−0·9	−9·0	+0·6	−3·6	−5·2	−0·7	+5·0	−2·1	−2·2	+0·2	+1·4	+1·2	−1·9	−0·8	+0·1	+0·7	+0·1	−0·3	−0·3
Equinox	+17·3	−0·9	−9·8	−1·2	+3·9	−1·5	−0·1	+0·8	−2·4	−12·7	+2·9	+9·6	−3·5	−5·1	+1·2	+1·7	+4·1	−0·8	−4·4	−0·4	+1·8	+0·4	−1·0	−0·2
Summer	+17·1	−7·1	−11·3	+2·7	+0·9	−1·2	−1·8	+0·5	−4·5	−21·2	+8·1	+11·4	−4·3	−4·0	0·0	+1·3	+6·3	−1·4	−6·7	−0·4	+2·5	−0·1	−0·8	−0·3
												DISTURBED DAYS												
Year	+1·3	−26·9	−17·1	+4·2	+5·2	−2·3	−2·5	−3·6	−21·5	−17·8	−3·9	+9·1	+1·4	−5·2	+1·1	−0·4	−22·0	−50·0	−11·0	−3·7	+5·5	+3·6	−0·8	−1·9
Winter	+3·4	+3·1	−11·3	−5·6	+0·4	−3·3	−0·6	−4·4	−19·5	−0·8	−3·6	+7·3	+0·8	−2·9	+0·4	+1·8	−14·6	−29·2	−10·9	+0·7	+0·9	+2·6	+0·1	−0·5
Equinox	−10·1	−41·6	−21·7	+22·1	+9·7	−5·7	−6·9	−2·1	−30·6	−20·9	−9·1	−11·7	+3·7	−6·3	+1·2	−2·1	−42·8	−76·7	−13·6	−6·3	+12·5	+2·1	+1·1	−2·4
Summer	+10·5	−42·3	−18·2	−3·8	+5·5	+2·2	0·0	−4·3	−14·4	−31·7	+1·2	+8·3	−0·4	−6·5	+1·8	−1·0	−8·6	−44·3	−8·6	−5·4	+3·0	+5·9	−3·5	−2·7

HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE

Values of c_n, α_n in the series $\Sigma c_n\sin(15nt + \alpha_n)$, t being mean local time, reckoned in hours from midnight

173 ESKDALEMUIR

	North component								West component								Vertical component							
	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4
	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°
												ALL DAYS												
Jan.	5·7	38	4·5	254	2·7	125	0·6	232	10·5	270	4·9	4	0·8	183	1·8	37	10·1	195	3·2	280	1·3	21	0·5	154
Feb.	4·5	151	9·2	256	2·6	183	2·0	241	10·6	237	6·0	336	3·5	214	1·8	29	16·6	206	4·6	253	0·8	57	1·2	286
Mar.	12·5	149	12·5	294	8·1	139	1·8	287	21·0	226	8·9	6	5·4	194	0·6	130	22·2	207	12·8	248	5·3	68	2·7	177
Apr.	14·7	125	20·1	283	2·2	112	3·7	311	21·8	221	12·0	7	6·0	225	2·5	29	16·3	199	7·9	278	2·4	118	0·8	229
May	24·5	128	15·5	286	3·2	38	1·9	159	22·3	204	11·7	26	4·1	231	1·6	69	18·3	172	6·9	272	2·2	67	0·8	232
June	23·9	130	16·5	287	0·9	41	1·1	173	25·3	196	12·0	20	3·3	233	0·9	6	15·2	178	9·4	263	2·3	87	1·2	159
July	28·0	158	12·8	264	4·2	142	2·4	217	27·6	199	8·4	41	5·8	215	0·5	320	18·6	181	7·1	248	2·0	39	3·1	250
Aug.	22·9	119	12·3	293	2·4	146	1·2	27	21·1	204	13·8	38	7·2	226	1·3	67	8·9	163	7·9	268	3·4	78	1·3	275
Sept.	22·1	143	12·1	311	6·3	106	1·8	174	20·8	222	14·3	11	6·8	189	1·2	169	34·8	207	6·2	256	4·9	106	1·0	244
Oct.	17·6	87	10·4	273	4·6	143	1·1	2	13·9	227	9·2	18	6·2	217	3·7	67	9·8	198	4·9	272	1·1	98	2·3	281
Nov.	11·3	82	7·8	257	2·6	136	0·7	42	11·4	238	6·5	349	3·1	235	2·7	38	7·2	188	1·2	252	1·3	108	0·7	277
Dec.	8·8	71	6·2	263	1·6	112	0·4	53	9·8	241	5·3	351	2·5	227	1·8	23	6·6	169	1·1	244	1·3	87	0·7	236
Year	14·4	125	11·2	281	2·9	127	0·5	249	17·1	217	9·0	15	4·4	216	1·4	47	14·9	193	6·0	261	2·1	81	1·0	239
Winter	6·4	79	6·9	258	2·1	141	0·4	249	10·3	246	5·6	349	2·4	221	2·0	33	9·9	194	2·5	261	1·0	71	0·6	262
Equinox	15·3	126	13·4	290	5·1	127	1·3	299	19·3	224	11·0	10	5·9	206	1·5	67	20·7	205	7·8	261	3·2	93	1·2	228
Summer	23·9	135	14·0	283	1·7	108	1·0	181	24·0	201	11·3	31	5·1	225	0·8	46	15·2	175	7·8	263	2·4	70	1·3	241
												QUIET DAYS												
Year	14·5	103	8·7	277	3·0	131	0·7	337	13·5	198	9·3	28	5·0	231	1·5	30	4·1	113	4·0	273	1·7	95	0·7	264
Winter	6·9	87	5·7	258	2·6	119	1·1	317	6·3	218	5·0	358	3·0	232	1·4	21	2·3	151	0·8	280	0·7	89	0·5	239
Equinox	17·3	96	9·8	270	4·2	121	0·8	9	12·9	194	10·0	23	6·1	224	2·1	48	4·2	104	4·4	272	1·8	88	1·0	273
Summer	18·5	116	11·7	290	1·5	154	1·9	297	21·7	195	14·0	42	5·9	237	1·3	13	6·5	106	6·7	273	2·5	101	0·9	264
												DISTURBED DAYS												
Year	27·0	181	17·6	290	5·7	123	4·4	227	27·9	234	9·9	343	5·4	175	1·1	123	54·7	207	11·6	258	6·5	67	2·0	215
Winter	4·6	51	12·6	250	3·3	182	4·4	201	19·5	271	8·2	340	3·0	174	1·8	24	32·7	210	10·9	280	2·8	29	0·5	187
Equinox	42·8	197	31·0	322	11·3	130	7·2	266	37·1	239	14·8	328	7·3	159	2·4	162	87·8	212	15·0	251	12·6	90	2·6	168
Summer	43·5	169	18·6	265	6·0	78	4·3	193	34·8	208	8·4	15	6·5	193	2·1	131	45·1	194	10·1	244	6·7	36	4·4	244

KEW

KEW OBSERVATORY

Latitude	51°28′N.
Longitude	0°19′W.
G.M.T. of Local Mean Noon ..	12h. 1m.

Heights of instruments	*above M.S.L.*	*above ground*
	m.	m.
Barometer	10·4	..
Thermometer bulbs	..	3·0
Rain-gauge site	5·5	..
Tilting-siphon rain recorder rim	..	0·53
Sunshine recorder	..	13·3
Pressure-tube anemograph	28	23

INTRODUCTION

Full details of the site, instruments, procedure and tabulation are given in the *Observatories' Year Book, 1938*. Changes and additions only are mentioned here.

Meteorology

Notes on the instruments

Pressure.- The photographic barograph is mounted in the galvanometer room of the underground seismograph house. It was transferred there on 15 May 1939 from the position in the north room of the basement of the main Observatory building which it had occupied since the inception of the record in 1862.

Temperature.- As from January 1943, Kew adopted the practice followed by the other Observatories for the tabulation of hourly readings of temperature from the curves of the photo-thermograph, i.e. by adjusting the glass scale, so that the readings at the control hours on the trace are made to show general agreement with the corresponding eye readings of the standard control thermometers, and then reading off the temperature equivalent from the curves at the requisite times. This supersedes method (*a*) set out on page 3 of the General Introduction to the *Observatories' Year Book, 1938*.

Rainfall.- On and after 1 October 1944, the hourly readings are from a Meteorological Office tilting-siphon recorder, M.O.80, instead of from the old Beckley self-registering rain-gauge No.1 which had been continuously in operation at Kew Observatory since 1871. The new instrument, whose funnel also has a collecting area of approximately 100 square inches, is set up 8·5 metres south-south-west of the standard check gauge with the rim at exactly the same height above ground level as was the old Beckley gauge, i.e. 0·53 metres. From 1 January 1945 onwards the hourly readings are adjusted to give totals in agreement with the check gauge read daily at 9h. and 21h. Prior to 1 August 1944 the check gauge was read at 7h. and 18h., from 1 August to 31 December 1944 at 6h. and 18h. A special instrument, known as the rainfall chronograph, which in effect is a sensitive drop-counting gauge, is used to help in determining the duration of rainfall of 0·1 mm. per hour or more. This gauge stands on the lawn about 6·5 metres west-north-west of the tilting-siphon recorder. The Jardi rate-of-rainfall recorder has proved to be unreliable at rates below 6 mm. per hour and such values are omitted from Table 184.

Solar radiation.- The tabulations of the radiation received on a surface perpendicular to the solar beam (Tables 188 and 190) were made on the assumption that the thermopile of the Gorczynski pyrheliograph had maintained its sensitivity. Subsequent investigation indicated

that a progressive decrease in sensitivity had occurred and that all tabulations needed correction from 1938 onwards until April 1945 when the thermopile was repaired and readjusted.* The factors by which the printed values should be multiplied are given in the Introductions for the years in question.

Minimum temperature on the grass.- From 1 January 1945 onwards the thermometer was set at 21h. and read at 9h. and the printed values refer to the period 21h. on the previous day to 9h. on the day of entry.

Identification numbers of instruments in use in 1946

During 1945 thermometer No.788 was used as the control dry-bulb thermometer and No.738 as the control wet-bulb thermometer 1887 and 1846 were used as the measuring glasses for the control rain-gauge. The dry-bulb tube of the photographic thermograph, Kew Tube No.411, scale value 1°A. = 2·997 mm. on the chart, was accidentally broken on 13 August 1946. It was replaced on 16 August by Kew Tube No.4, scale value 1°A. = 3·683 mm. which had been in use as the wet-bulb tube at Kew since 18 March 1936. A matched tube held in stock was taken into use as the new wet-bulb tube. Its number is unknown but its scale value is identical with Kew Tube No.4, i.e. 1°A. = 3·683 mm., thus enabling one glass tabulating scale to be used for the measurement of both dry and wet-bulb curves.

Thermometer corrections 1946

	No.788 N.P.L.1933		*No.738 N.P.L.1938*		*M.O.5. N.P.L.1913*		*M.O.10. N.P.L.1913*		*M.O.108011 N.P.L.1929*	
	°F.		°F.		°A.		°A.		°F.	
Certified	2	+0·1	2	+0·2	250	+0·1	250	+0·3	2	0·0
	12	+0·1	12	+0·1	273	0·0	273	+0·1	22	0·0
	32	0·0	32	0·0	280	0·0	280	+0·2	32	0·0
	52	-0·1	52	-0·1	290	0·0	290	0·0	52	0·0
	72	0·0	72	-0·1	300	0·0	300	0·0	72	0·0
Applied	92	0·0	92	-0·2	310	0·0	316	+0·1	..	..
		0·0		0·0		0·0		0·1		0·0

Notes on the meteorological summaries

The mean temperature for the year 1946, 283·1°A. (50·2°F.), was a little above the average of 282·8°A. (49·6°F.) for the period 1871-1915. February, April and November were mild months with mean temperatures 4°F. above average. There were three days, all in July, on which the maximum temperature in the north-wall screen exceeded 300°A. (80·6°F.). The highest reading was 301·2°A. (82·8°F.) at 15h.10m. on 12 July. There were three "ice days", i.e. days with a maximum temperature in the screen of 273·0°A. (32·0°F.) or less; two occurred in January and one in December. The lowest temperature in the north-wall screen was 266·0°A. (19·4°F.) registered at 10h.15m. on 21 December on which date the lowest recording of the grass minimum thermometer, i.e. 260·0°A. (9·0°F.), also occurred.

The rainfall for the year, 777 mm., was 28 per cent above the average for the standard period 1881-1915. March and October, with 69 and 49 per cent of the average respectively were the only dry months. May, with twice the average rainfall, was the wettest since 1932. August, September (the wettest since 1927) and November had 166, 184 and 184 per cent of the average respectively, whilst February and July were also wet with 45 per cent above average. The heaviest rainfall in one day was 53 mm. in a thunderstorm on 26 July.

*STAGG, J.M.; Solar radiation at Kew Observatory. *Geophys. Mem., London*, 11, No.86, 1950.

The sunshine for the year, 1441 hours, was 28 hours less than the normal for the period 1906-1935. July with 239 hours was the sunniest month but March, September, October and November each had only 80 per cent or less of the average.

The highest wind speed recorded in a gust was 31 m./sec. (68 m.p.h.) at 18h.20m. on 20 September. The highest on record is 33 m./sec. (73 m.p.h.) on 23 November 1938.

Diurnal variation of pressure and temperature; harmonic analysis. Notes on the tables will be found in the *Observatories' Year Book, 1938*.

TABLE 174 - DIURNAL VARIATION OF BAROMETRIC PRESSURE FOURIER COEFFICIENTS

Values of c_n, α_n in the series $\Sigma c_n \sin(15nt + \alpha_n)$, t being local mean time reckoned in hours from midnight

	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926
	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°
January	0.59	0.02	295	315	0.28	0.31	145	151	0.17	0.17	344	346	0.10	0.07	208	202
February	0.57	0.05	70	73	0.23	0.36	138	146	0.12	0.12	351	340	0.06	0.03	61	108
March	0.23	0.11	33	38	0.45	0.40	155	149	0.07	0.07	332	332	0.05	0.04	30	25
April	0.47	0.28	10	31	0.49	0.40	151	151	0.05	0.03	169	185	0.06	0.04	354	353
May	0.39	0.32	46	27	0.38	0.35	144	148	0.09	0.09	166	161	0.04	0.02	319	319
June	0.18	0.30	77	17	0.34	0.32	162	143	0.13	0.09	147	160	0.03	0.01	263	260
July	0.32	0.26	52	16	0.34	0.31	145	140	0.11	0.10	149	153	0.04	0.01	306	241
August	0.24	0.21	121	20	0.29	0.34	168	144	0.04	0.06	156	155	0.05	0.04	326	309
September	0.47	0.12	31	6	0.44	0.40	150	152	0.01	0.01	53	350	0.08	0.04	354	332
October	0.04	0.06	39	76	0.40	0.38	168	160	0.10	0.09	7	359	0.03	0.01	343	22
November	0.62	0.03	68	124	0.39	0.34	155	160	0.11	0.13	10	358	0.03	0.03	242	183
December	0.29	0.08	27	137	0.23	0.31	165	152	0.15	0.15	358	353	0.09	0.07	306	205
Arithmetic mean	0.37	0.15			0.35	0.35			0.10	0.09			0.05	0.03		
Year	0.27	0.14	41	29	0.35	0.35	154	150	0.03	0.03	19	359	0.03	0.01	322	280
Winter	0.29	0.03	37	111	0.28	0.33	151	152	0.14	0.14	355	350	0.03	0.05	259	208
Equinox	0.30	0.14	24	32	0.44	0.39	156	153	0.03	0.04	360	345	0.05	0.03	360	359
Summer	0.25	0.27	67	20	0.33	0.33	154	144	0.09	0.08	153	157	0.04	0.02	309	305

TABLE 175 - DIURNAL VARIATION OF TEMPERATURE FOURIER COEFFICIENTS

Values of c_n, α_n in the series $\Sigma c_n \sin(15nt + \alpha_n)$, t being local mean time reckoned in hours from midnighg

	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926	1946	1871-1926
	°A.	°A.	°	°	°A.	°A.	°	°	°A.	°A.	°	°	°A.	°A.	°	°
January	0.69	0.99	198	221	0.46	0.43	34	35	0.19	0.17	203	208	0.04	0.01	53	3
February	1.41	1.53	223	221	0.44	0.57	24	34	0.10	0.12	250	211	0.05	0.06	99	169
March	2.40	2.45	219	222	0.57	0.63	38	40	0.08	0.07	330	334	0.09	0.11	181	197
April	3.88	3.21	221	226	0.48	0.48	47	51	0.31	0.22	10	24	0.07	0.07	199	218
May	3.51	3.72	225	227	0.13	0.15	294	74	0.25	0.31	36	35	0.10	0.04	30	20
June	2.62	3.72	229	226	0.08	0.02	94	84	0.18	0.26	34	35	0.09	0.10	10	33
July	3.61	3.68	226	225	0.06	0.06	181	50	0.25	0.29	22	31	0.11	0.07	42	28
August	2.74	3.54	227	226	0.23	0.34	48	52	0.25	0.30	39	28	0.03	0.03	222	218
September	1.93	3.22	232	228	0.48	0.71	65	49	0.14	0.14	6	24	0.13	0.16	246	213
October	1.96	2.32	231	229	0.54	0.76	57	50	0.12	0.10	277	248	0.07	0.12	231	200
November	1.01	1.39	227	226	0.33	0.57	42	44	0.14	0.18	224	232	0.00	0.02	280	141
December	1.08	0.90	226	226	0.38	0.40	47	41	0.17	0.16	202	215	0.03	0.04	121	38
Arithmetic mean	2.24	2.56			0.35	0.43			0.18	0.19			0.07	0.07		
Year	2.23	2.56	225	226	0.31	0.42	45	45	0.07	0.08	5	17	0.00	0.02	114	195
Winter	1.03	1.20	221	223	0.39	0.49	36	39	0.14	0.15	216	217	0.02	0.01	91	121
Equinox	2.53	2.80	225	226	0.51	0.64	51	47	0.13	0.09	350	4	0.08	0.11	218	207
Summer	3.12	3.67	226	226	0.05	0.14	44	59	0.23	0.29	32	32	0.07	0.04	27	27

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

Atmospheric electricity

No change took place during 1946 in the method and procedures for observing potential gradient, air-earth current and conductivity, from those printed in the Introduction for 1938. Details of the changes of position of the Kelvin electrograph in April 1940 and of the effects on the instrument of the erection of a fire escape in March 1941 are printed in the Introduction for the years in question.

In 1946 the mean value of the air-earth current for the year, allowing equal weight for each month, was 122×10^{-18} amp. cm.$^{-2}$. The mean value of the conductivity for the year was 42×10^{-18} ohm^{-1} cm.$^{-1}$.

The mean factor for the year for the Kelvin electrograph was 4·33 giving an equivalent height for the collector of 23·1 cm. In 1946 there were 149, 154 and 62 days of electrical character 0, 1 and 2 respectively. The extreme hourly values of potential gradient in Table 198 are 1890 volts per metre at 9h. on 13 December and -1435 volts per metre at 15h. on 14 November.

During the following months there were not 10 "quiet" calendar days.

1946	*Calendar days*	*Other spells*	*Total*
February	9	1	10
June	8	2	10
August	8	2	10
September	7	3	10
November	9	1	10
December	8	2	10

The *Observatories' Year Book, 1938* should be consulted for an explanation of the figures in the foregoing paragraphs.

Atmospheric Pollution

During 1946 the highest estimate of pollution was 2·0 mg. m.$^{-3}$, this value occurring on 19 January at 21h. There were 9 days on which the pollution reached 1·0 mg. m.$^{-3}$. The number of hours credited with 1·0 mg. m.$^{-3}$ was 46 of which 24 were recorded during December.

Seismology

The seismological diary and table of microseisms, which were printed in the *Observatories' Year Book* from 1922 to 1939 are now omitted. The distribution of the *Kew Monthly Bulletin* ceased in May 1940* but such seismological data as are available for 1946 are published in the *International Seismological Summary.*

No change took place in instruments or procedures from those printed in the Introduction for 1938 and 1939 except that the two modified Wood-Anderson seismographs, which were put out of commission as an economy measure in May 1942, have not been reinstated.

The Galitzin seismographs were not standardized during 1946.

The total number of shocks measured during the year was 326. The phases of 110 of these were sufficiently well defined to allow an estimate of the epicentral distance to be computed. No British earthquakes were recorded during 1946 although an earthquake is reported to have been felt at Inverness on 25 December.

*It was resumed in 1947.

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·6 is printed 05·6

176 KEW OBSERVATORY: h_b(height of barometer cistern above M.S.L.) = 10·4 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	26·5	21·6	23·3	02·7	95·9	99·2	10·9	06·4	08·9	24·2	22·1	23·4	13·7	11·9	12·8	96·4	87·4	*91·9*
2	33·5	26·5	30·7	02·3	91·5	*94·8*	10·4	02·4	06·2	24·5	21·9	23·3	16·3	11·4	12·7	04·4	*86·8*	95·6
3	34·6	30·4	33·3	04·6	97·6	00·9	02·4	98·2	*99·5*	22·4	17·9	20·0	22·5	15·5	18·6	14·4	04·2	08·4
4	30·6	21·6	26·1	07·5	98·0	02·2	03·1	00·9	01·7	17·9	13·3	15·3	*23·3*	20·6	*22·1*	15·2	10·3	13·7
5	21·6	19·8	20·3	16·0	07·5	11·1	09·3	03·1	06·3	25·5	14·2	18·6	21·9	19·5	20·7	10·3	04·6	06·6
6	21·9	19·6	20·7	19·4	12·0	15·5	11·7	09·1	10·2	33·0	25·5	30·4	20·2	15·9	17·5	16·3	07·7	11·6
7	21·5	15·6	18·1	18·7	11·5	15·2	13·1	11·3	12·1	*33·3*	24·7	28·9	18·6	14·6	16·5	18·7	16·2	17·3
8	15·6	07·8	10·5	11·5	*87·1*	00·6	11·5	09·7	10·5	24·7	18·2	20·6	22·9	16·4	19·8	16·2	07·3	10·8
9	08·0	*87·1*	98·2	21·5	95·5	13·4	15·1	10·5	12·4	26·9	20·6	23·9	22·9	18·8	20·7	13·7	02·7	10·7
10	06·2	88·3	99·9	22·1	19·6	20·5	16·7	15·1	16·0	30·3	26·9	29·0	20·1	17·6	18·9	10·7	98·2	03·1
11	07·0	01·9	04·4	23·7	22·0	22·9	16·5	07·4	12·1	29·9	18·3	23·7	20·2	16·3	18·5	12·9	10·5	11·7
12	22·8	02·3	12·2	27·1	21·9	24·3	07·4	98·8	02·2	18·3	14·8	16·3	16·3	09·0	11·8	18·7	12·1	14·4
13	37·0	22·7	29·4	33·3	27·0	29·6	03·0	*97·9*	00·0	18·0	15·5	16·8	11·1	07·0	08·8	23·2	18·7	21·7
14	42·6	37·0	40·6	38·2	33·3	35·8	11·5	03·0	06·9	18·7	15·2	17·1	11·8	07·3	09·1	22·5	15·7	19·0
15	*45·1*	42·6	*44·0*	*39·6*	37·9	*38·8*	21·2	11·5	15·7	16·9	14·1	15·6	12·9	11·4	12·0	15·7	10·2	12·3
16	44·3	32·4	38·1	39·1	30·7	33·9	*30·5*	21·2	26·7	18·4	15·3	16·9	13·3	11·4	12·4	12·1	09·5	11·0
17	32·5	20·7	27·9	33·2	27·8	31·1	30·4	26·8	*28·7*	15·5	13·0	14·1	14·1	12·3	12·9	13·2	09·9	12·1
18	20·7	10·1	13·6	28·4	22·0	24·4	26·8	24·0	25·1	27·2	13·8	19·3	13·8	11·8	13·0	12·5	07·9	10·3
19	20·1	10·4	15·1	22·0	14·3	17·2	24·8	22·1	23·6	31·1	27·2	29·7	13·3	10·8	11·8	16·2	10·1	12·1
20	25·8	20·1	23·0	14·3	09·7	11·3	22·3	12·4	16·6	30·2	24·4	27·1	12·0	08·6	10·1	22·6	16·1	18·2
21	29·2	25·5	27·7	21·9	13·2	17·8	18·2	09·5	15·2	30·6	26·1	28·0	15·7	09·3	11·7	29·1	22·6	26·0
22	28·8	13·4	21·9	22·0	10·8	18·2	11·0	*97·9*	03·2	32·6	28·7	*30·6*	19·9	15·6	17·9	*29·8*	25·6	*28·0*
23	20·8	11·1	14·2	10·8	93·2	00·9	17·2	11·0	15·1	28·7	13·7	20·6	19·9	16·9	18·5	25·8	17·7	22·3
24	27·3	20·8	25·1	12·3	08·9	11·2	19·0	14·7	15·9	13·7	04·8	09·7	16·9	09·7	12·4	17·7	14·5	15·6
25	25·2	18·1	22·1	12·1	10·1	11·0	25·7	19·0	22·9	04·8	97·7	99·8	09·7	05·2	07·3	16·3	10·6	14·0
26	18·1	10·8	13·2	10·1	06·3	07·5	27·5	25·1	26·3	02·2	98·0	00·6	05·5	98·9	02·6	15·9	08·5	10·8
27	17·5	11·3	14·7	09·1	06·9	07·9	28·4	26·0	27·2	03·1	99·2	00·9	07·3	97·0	02·1	18·2	13·9	16·3
28	17·2	01·0	12·3	06·9	04·6	05·8	27·2	21·8	24·6	03·6	00·2	01·7	07·6	04·5	06·3	19·5	12·2	15·5
29	07·3	88·1	00·3				23·9	20·6	21·8	03·1	*97·3*	*99·3*	08·8	06·3	07·3	21·2	19·2	20·1
30	07·9	87·8	*97·8*				27·9	23·9	26·4	12·5	03·1	08·3	08·5	02·5	05·8	25·5	19·8	22·8
31	12·7	02·7	09·0				27·5	23·1	25·2				03·8	*94·6*	*99·8*			
Mean	23·55	13·84	18·96	18·94	11·31	15·11	17·81	12·40	15·01	20·73	14·86	17·64	14·99	10·60	12·66	16·83	10·36	13·46

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	26·3	21·6	24·4	*21·5*	18·5	*20·3*	09·8	05·2	07·3	18·4	12·6	15·2	15·2	10·4	11·8	14·7	03·7	09·4
2	21·6	13·3	16·6	18·5	13·3	15·2	07·9	06·1	07·1	18·4	13·7	17·0	17·7	11·8	15·0	06·7	01·7	05·0
3	16·1	04·9	12·2	15·7	13·9	14·9	06·1	92·6	99·1	16·1	12·7	14·3	23·6	17·1	19·9	01·7	*94·7*	96·7
4	09·5	03·3	07·1	15·6	11·9	14·1	98·9	*91·4*	*93·9*	17·2	14·0	16·1	29·3	23·2	26·1	12·9	97·6	05·6
5	21·7	08·4	14·7	12·5	07·8	10·0	05·7	98·6	01·0	15·7	13·5	14·3	34·2	29·0	31·7	14·1	10·4	12·2
6	31·0	21·7	26·2	15·1	11·9	13·9	07·3	04·9	06·1	19·3	13·3	16·4	*34·3*	28·8	*32·3*	13·5	10·5	12·3
7	*32·0*	30·2	*31·2*	14·6	10·5	12·1	10·7	06·6	09·3	24·2	19·0	21·3	28·8	16·6	22·3	11·7	95·5	00·5
8	31·7	28·4	30·1	11·8	02·3	06·4	11·4	05·5	07·1	27·6	24·1	26·2	16·6	11·3	13·8	96·6	71·1	*82·5*
9	29·7	27·0	28·7	06·8	98·6	04·9	21·1	11·4	17·5	28·2	26·6	27·4	15·2	11·4	13·5	01·3	73·1	87·3
10	28·8	25·9	27·4	08·5	*90·6*	97·5	21·7	13·6	19·2	*29·3*	27·6	*28·2*	22·5	12·9	18·4	13·1	01·3	09·3
11	26·1	19·8	22·5	13·2	08·5	11·8	17·9	10·6	13·3	27·8	24·7	26·2	22·3	20·8	21·7	11·4	99·8	05·2
12	19·8	14·5	16·6	09·5	96·6	02·8	20·0	14·6	18·1	25·7	19·9	22·9	21·0	07·8	14·5	21·8	09·9	17·1
13	14·5	06·7	09·7	18·2	96·4	10·9	14·6	11·0	12·1	20·3	18·4	19·4	09·3	06·0	08·3	30·3	21·8	26·5
14	09·7	06·5	08·0	17·6	13·5	15·0	13·5	07·9	11·1	20·7	19·2	19·8	06·0	99·3	01·1	34·9	29·7	31·9
15	10·3	04·7	08·7	14·9	12·6	13·9	19·6	08·9	16·2	23·5	20·0	21·8	99·9	95·5	97·6	*41·4*	34·9	*39·0*
16	04·7	*97·2*	*00·1*	12·6	03·8	08·3	19·1	15·5	17·4	24·9	22·3	23·2	04·2	98·3	02·0	40·9	36·2	38·3
17	05·6	02·9	03·8	14·3	03·0	08·5	15·5	08·9	11·4	22·6	19·5	21·3	03·2	*82·1*	91·1	36·4	34·4	35·6
18	06·9	04·0	05·0	15·3	12·1	13·6	11·7	98·2	05·5	20·0	12·4	16·7	94·2	84·1	89·0	36·3	32·3	34·8
19	12·6	06·7	09·5	12·1	08·4	09·7	13·0	02·7	09·4	12·4	02·3	06·5	93·9	88·5	91·5	32·3	22·1	26·3
20	15·3	12·4	13·5	15·5	08·4	11·7	11·5	84·3	96·1	02·5	*99·1*	*00·2*	90·7	82·2	*86·1*	25·2	23·4	24·2
21	16·6	14·2	15·6	19·2	15·1	16·3	*24·4*	11·5	*21·4*	06·5	00·3	02·8	92·2	88·6	90·3	24·7	20·2	23·0
22	18·2	12·6	14·4	19·3	17·8	18·6	23·4	15·0	19·1	14·5	06·5	10·3	15·1	87·9	99·3	20·2	09·6	14·6
23	20·0	14·4	18·0	18·8	14·1	16·9	15·0	12·8	13·7	20·3	14·5	17·1	15·9	07·0	12·2	09·6	03·0	05·4
24	15·4	09·3	11·4	14·1	09·3	11·0	17·8	14·8	16·8	22·7	20·0	21·3	07·0	97·4	01·8	17·3	04·5	12·1
25	20·3	15·4	18·9	09·6	06·9	08·3	21·4	16·5	19·0	22·4	16·7	20·0	03·4	97·3	99·3	16·5	03·3	08·7
26	19·4	04·3	11·6	11·1	09·3	10·2	21·3	16·4	18·4	16·7	05·9	11·2	08·5	97·7	03·0	07·4	95·5	02·8
27	19·7	08·7	13·7	10·5	03·4	08·9	22·0	16·1	19·0	12·4	03·8	07·1	08·2	02·2	04·0	12·1	97·2	03·7
28	20·3	12·6	18·3	03·4	91·6	*95·2*	22·2	17·4	20·2	22·2	12·4	16·6	03·1	96·8	00·2	21·7	12·1	17·2
29	16·2	11·5	13·6	03·6	92·2	98·6	17·4	12·4	14·5	24·4	22·1	23·1	01·9	93·2	95·8	24·0	17·3	21·9
30	16·1	09·8	12·8	07·6	03·5	05·3	19·1	15·5	17·6	22·4	19·0	20·6	04·7	98·3	02·2	17·3	12·0	14·7
31	19·9	13·8	16·8	10·2	07·3	08·9				22·4	15·2	19·8				12·0	01·1	05·8
Mean	18·58	12·47	15·52	13·26	06·87	10·12	15·37	08·23	11·93	20·05	15·20	17·56	11·40	03·45	07·19	18·71	09·03	13·86
									Annual	17·52	10·73	14·10						

PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

177 KEW OBSERVATORY: h_b = 10·4 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	18·83	18·72	18·89	18·98	18·97	18·91	18·99	19·21	19·57	19·95	*20·12*	20·06	19·70	19·20	18·93	18·77	18·69	18·59	18·51	18·45	18·41	18·35	18·35	18·29	*18·21*	18·96
Feb.	15·85	15·77	15·64	15·44	15·27	15·15	15·02	14·98	15·09	15·10	14·96	14·97	14·85	14·55	14·39	*14·30*	14·43	14·61	14·99	15·21	15·33	15·50	15·54	15·75	*15·99*	15·11
Mar.	15·05	14·97	14·79	14·65	14·63	14·67	14·81	15·05	15·25	15·42	15·39	15·33	15·14	14·82	14·58	14·37	*14·35*	14·51	14·85	15·18	15·42	15·52	15·56	*15·65*	15·61	15·01
Apr.	18·21	17·99	17·83	17·75	17·63	17·76	18·02	18·23	18·32	*18·43*	18·22	18·01	17·78	17·52	17·17	16·79	*16·65*	16·58	16·78	17·07	17·51	17·68	17·77	17·86	17·82	17·64
May	*13·48*	13·18	13·09	12·88	12·78	12·78	12·92	13·02	13·02	13·05	12·82	12·75	12·59	12·37	12·19	12·02	11·83	*11·80*	11·90	12·18	12·61	12·84	13·00	13·01	12·97	12·66
June	13·30	13·10	12·90	*12·79*	12·86	13·02	13·21	13·45	13·60	13·59	13·47	13·40	13·33	13·25	13·28	13·33	13·26	13·30	13·46	13·64	13·94	14·29	*14·45*	14·40	14·26	13·46
July	16·14	15·90	15·77	15·54	15·45	15·53	15·66	15·75	15·85	15·78	15·65	15·54	15·39	15·25	15·17	15·06	14·98	*14·80*	14·97	15·23	15·50	15·91	*15·98*	15·97	15·97	15·52
Aug.	10·50	10·36	10·15	10·02	09·07	09·90	10·07	10·19	10·24	10·25	10·15	09·99	10·01	09·90	*09·80*	09·82	09·83	09·87	10·03	10·24	10·53	10·54	*10·57*	10·38	10·17	10·12
Sept.	12·21	12·28	12·07	11·87	11·78	11·87	12·06	12·23	12·37	12·49	12·29	12·09	11·91	11·62	11·40	11·18	*10·99*	11·08	11·36	11·80	12·04	12·29	12·45	12·50	*12·50*	11·93
Oct.	17·75	17·63	17·49	17·29	17·21	17·27	17·40	17·68	17·91	*18·07*	18·03	17·87	17·59	17·34	17·15	*17·04*	17·11	17·25	17·53	17·91	17·78	17·88	17·80	17·66	17·65	17·56
Nov.	*08·14*	07·99	07·87	07·63	07·44	07·29	07·19	07·25	07·41	07·51	07·33	07·09	06·72	06·47	06·20	*06·15*	06·31	06·50	06·80	07·05	07·32	07·64	07·71	07·76	07·79	07·19
Dec.	14·02	13·96	14·02	13·91	13·80	13·70	13·79	13·88	14·09	14·33	*14·37*	14·21	13·84	13·53	13·31	*13·22*	13·35	13·49	13·59	13·80	13·95	14·00	14·14	14·22	14·23	13·86
Annual	14·46	14·33	14·21	14·07	13·98	13·99	14·10	14·25	14·41	*14·51*	14·41	14·29	14·08	13·83	13·64	*13·52*	13·49	13·54	13·74	13·97	14·20	14·38	14·45	14·46	14·43	14·10

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

178 KEW OBSERVATORY: h_b = 10·4 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	20·14	20·02	20·17	20·29	20·29	20·22	20·30	20·52	20·89	21·27	*21·43*	21·37	21·00	20·50	20·24	20·07	20·00	19·90	19·81	19·75	19·71	19·66	19·65	19·60	*19·52*	20·27
Feb.	17·15	17·06	16·94	16·73	16·56	16·45	16·31	16·28	16·38	16·39	16·25	16·25	16·13	15·83	15·67	*15·59*	15·71	15·89	16·28	16·50	16·62	16·79	16·84	17·03	*17·28*	16·40
Mar.	16·35	16·27	16·10	15·95	15·94	15·97	16·11	16·35	16·56	16·72	16·68	16·63	16·43	16·11	15·86	15·65	*15·63*	15·80	16·14	16·48	16·71	16·82	16·86	*16·94*	16·91	16·30
Apr.	19·49	19·28	19·12	19·04	18·92	19·05	19·32	19·52	19·60	*19·71*	19·49	19·27	19·04	18·78	18·42	18·05	17·91	*17·84*	18·05	18·34	18·78	18·96	19·05	19·15	19·10	18·92
May	*14·76*	14·46	14·38	14·17	14·06	14·07	14·20	14·29	14·29	14·31	14·08	14·02	13·84	13·62	13·45	13·27	13·08	*13·05*	13·14	13·44	13·87	14·11	14·27	14·29	14·24	13·93
June	14·56	14·37	14·16	*14·05*	14·13	14·29	14·48	14·71	14·86	14·85	14·72	14·65	14·56	14·49	14·52	14·57	14·50	14·55	14·70	14·89	15·19	15·55	*15·71*	15·66	15·53	14·72
July	*17·39*	17·16	17·02	16·80	16·71	16·79	16·91	16·99	17·10	17·02	16·89	16·78	16·63	16·49	16·41	16·29	16·21	*16·04*	16·21	16·49	16·74	17·15	17·22	17·21	17·21	16·76
Aug.	11·76	11·61	11·40	11·27	11·13	11·16	11·33	11·45	11·49	11·49	11·39	11·23	11·25	11·14	*11·03*	11·05	11·07	11·11	11·26	11·48	11·77	11·78	*11·82*	11·63	11·43	11·37
Sept.	13·47	13·54	13·33	13·13	13·05	13·13	13·32	13·49	13·63	13·74	13·54	13·33	13·15	12·87	12·64	12·43	*12·23*	12·32	12·61	13·05	13·29	13·54	13·70	13·75	*13·76*	13·18
Oct.	19·03	18·92	18·77	18·58	18·49	18·55	18·69	18·96	19·19	*19·35*	19·31	19·14	18·85	18·61	18·42	*18·31*	18·38	18·51	18·80	18·98	19·06	19·16	19·07	18·93	18·93	18·83
Nov.	*09·41*	09·27	09·15	08·90	08·72	08·56	08·47	08·52	08·69	08·79	08·61	08·37	07·99	07·73	07·47	*07·42*	07·58	07·77	08·07	08·33	08·59	08·92	08·99	09·03	09·07	08·46
Dec.	15·33	15·27	15·33	15·22	15·11	15·01	15·10	15·19	15·40	15·64	*15·68*	15·31	15·14	14·83	14·61	*14·52*	14·65	14·79	14·89	15·11	15·26	15·31	15·45	15·53	15·54	15·16
Annual	15·70	15·61	15·49	15·35	15·26	15·27	15·38	15·53	15·69	*15·78*	15·68	15·56	15·35	15·09	14·90	14·78	*14·75*	14·80	15·01	15·24	15·47	15·65	15·73	15·74	15·71	15·37

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

179 KEW OBSERVATORY: North-wall screen: h_t = 3·0

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	degrees Absolute																									
Jan.	76·57	76·45	76·31	76·22	76·10	76·05	75·91	75·78	*75·57*	75·68	76·17	76·69	77·20	77·64	*77·85*	77·78	77·54	77·18	76·97	76·91	76·87	76·90	76·83	76·81	76·86	76·65
Feb.	79·05	79·10	78·96	78·92	78·79	78·84	78·79	78·76	78·81	79·31	79·71	80·54	81·12	81·40	81·43	*81·51*	81·33	80·94	80·48	80·12	79·80	79·33	79·06	78·90	*78·70*	79·78
Mar.	77·01	76·74	76·59	76·31	76·22	*76·00*	76·01	76·11	76·72	77·60	78·57	79·41	80·28	80·64	80·99	*81·10*	80·96	80·62	79·97	79·28	78·62	78·28	77·84	77·51	77·24	78·30
Apr.	81·37	80·91	80·63	80·23	79·98	*79·75*	*79·75*	80·94	81·82	83·29	84·65	85·57	86·51	86·96	87·45	*87·75*	87·34	87·47	86·65	85·39	84·23	83·45	82·62	81·97	81·51	83·62
May	81·83	81·48	81·05	80·93	*80·78*	80·95	81·75	82·54	83·50	84·41	85·16	85·72	86·44	87·13	87·53	*87·69*	87·65	87·61	87·31	86·31	84·91	83·94	83·11	82·33	81·83	84·25
June	85·10	84·87	84·60	84·36	*84·21*	84·42	85·01	85·70	86·60	87·30	87·93	88·45	88·91	89·38	89·52	*89·60*	89·48	89·19	88·91	88·40	87·43	86·70	86·13	85·68	85·31	86·99
July	87·92	87·48	87·20	86·81	*86·71*	86·91	87·76	88·70	89·71	90·67	91·51	92·35	92·95	93·36	93·65	*93·76*	93·66	93·63	93·18	92·43	91·08	89·95	89·15	88·41	87·82	90·37
Aug.	86·75	86·44	86·23	85·91	85·86	*85·76*	86·21	86·84	87·78	88·71	89·43	89·98	90·43	90·85	91·20	*91·36*	91·28	90·90	90·56	89·53	88·65	87·98	87·50	87·15	86·74	88·48
Sept.	86·25	86·11	86·01	85·87	85·71	85·55	*85·51*	85·85	86·81	87·70	88·45	88·73	89·26	*89·61*	89·54	89·51	89·32	88·94	88·23	87·46	87·13	86·88	86·67	86·56	86·29	87·40
Oct.	82·71	82·58	82·37	82·28	82·29	*82·10*	*82·10*	82·28	82·83	83·67	84·56	85·29	85·74	*86·06*	86·18	85·98	85·54	84·96	84·47	84·02	83·67	83·35	82·96	82·64	82·49	83·78
Nov.	81·04	80·98	80·87	*80·86*	80·91	*80·86*	*80·86*	80·87	80·97	81·31	81·75	82·29	82·67	82·97	*83·07*	82·96	82·68	82·23	82·02	81·87	81·70	81·51	81·35	81·21	81·03	81·66
Dec.	75·70	75·43	75·36	75·31	75·29	*75·27*	75·45	75·45	75·47	75·74	76·25	76·72	77·25	*77·65*	77·66	77·55	77·10	76·79	76·57	76·31	76·02	75·91	75·92	75·70	75·55	76·15
Annual	81·77	81·55	81·35	81·17	81·07	*81·04*	81·26	81·66	82·22	82·96	83·69	84·32	84·91	85·32	85·52	*85·56*	85·34	85·05	84·62	84·01	83·35	82·86	82·44	82·08	81·79	83·13

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0° is printed 75·0°. Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

180 KEW OBSERVATORY: North-wall screen: h_t(height of thermometer bulb above ground) = 3·0 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	degrees Absolute																	
1	74·4	71·9	73·4	83·2	80·0	81·6	76·0	71·7	73·7	89·4	77·9	83·3	91·2	80·7	86·3	88·0	83·0	85·3
2	74·0	73·1	73·3	82·2	78·0	80·3	75·2	73·3	74·0	92·8	79·6	85·4	90·1	81·5	85·5	89·9	82·8	85·7
3	73·3	69·0	71·7	85·0	80·5	82·7	76·0	72·5	74·2	*96·6*	81·2	*88·8*	88·5	80·2	84·0	90·0	83·3	86·3
4	77·1	69·9	74·1	82·9	78·5	80·9	75·6	71·2	*73·6*	96·0	82·2	88·1	88·1	79·5	83·3	87·4	81·1	85·1
5	80·9	76·0	79·2	83·3	78·6	80·6	76·3	74·8	75·5	85·2	78·8	82·7	84·8	77·3	80·5	90·3	85·1	87·0
6	81·4	79·2	80·2	*86·1*	78·1	81·7	75·3	74·0	74·8	84·9	76·7	80·6	86·4	76·3	82·2	92·1	83·8	87·2
7	80·5	75·4	78·4	*86·1*	81·9	*84·5*	76·7	74·0	75·2	88·2	76·8	82·3	90·5	82·0	85·7	94·0	*80·1*	87·7
8	81·3	79·1	80·4	85·5	75·5	83·5	75·1	71·5	73·9	86·9	78·7	83·0	84·1	79·6	81·8	90·1	85·6	87·5
9	83·3	81·2	82·4	81·0	76·9	78·9	76·3	71·2	73·8	85·1	78·0	81·3	88·1	79·1	83·3	88·6	82·9	85·8
10	84·9	81·1	82·9	83·6	77·2	80·3	79·2	*70·1*	74·3	82·7	75·0	*78·7*	91·0	79·6	85·4	88·4	82·8	86·1
11	*85·9*	82·7	*84·8*	82·5	78·2	80·3	78·4	70·6	75·4	86·1	*73·0*	80·2	88·1	80·5	83·3	87·7	81·4	*83·8*
12	83·2	78·9	81·0	83·6	79·5	81·5	83·1	75·8	79·0	87·7	77·3	82·3	91·4	79·8	84·7	89·1	80·6	84·9
13	79·0	74·2	77·4	83·1	80·8	81·9	79·6	76·1	77·9	90·2	76·8	83·9	85·9	79·3	82·3	91·6	81·4	86·2
14	76·5	72·9	74·7	83·3	80·9	82·1	77·2	75·3	76·1	90·7	77·9	84·5	82·6	77·7	80·2	91·4	82·5	86·8
15	76·0	73·0	74·7	81·9	80·8	81·2	76·4	74·5	75·6	91·3	77·5	85·0	86·2	75·1	80·6	90·9	85·0	86·6
16	76·6	72·0	74·3	84·2	80·7	82·2	75·1	73·0	74·2	92·4	79·8	85·5	85·0	76·9	*80·0*	89·8	84·0	86·3
17	74·3	72·6	73·4	83·1	77·5	80·0	78·4	71·5	75·7	89·5	82·6	85·6	87·4	*74·9*	82·1	89·9	84·7	86·8
18	74·0	71·1	72·5	83·3	78·0	81·5	83·0	77·9	80·7	85·1	78·8	83·0	87·7	81·2	84·3	90·2	83·9	86·5
19	75·5	69·9	73·2	85·2	80·1	82·4	85·2	79·8	82·4	87·4	75·6	81·8	89·4	78·6	83·8	87·8	82·2	84·6
20	72·5	*68·0*	*70·1*	81·0	75·0	79·2	86·1	76·4	82·1	90·1	76·0	83·7	89·5	78·7	84·9	89·1	82·1	85·5
21	72·7	68·5	70·9	77·8	73·8	75·8	85·6	81·5	82·8	87·1	80·5	83·8	87·9	80·9	84·9	92·1	82·0	87·2
22	76·0	72·0	73·9	80·6	71·7	76·4	83·1	79·5	81·8	87·4	78·3	82·8	91·9	80·1	85·5	93·6	82·9	89·3
23	76·1	73·8	74·9	83·2	75·7	79·7	85·2	77·8	81·1	88·1	77·3	83·5	*92·4*	81·1	87·1	*96·2*	86·6	*90·6*
24	77·1	73·6	75·1	79·6	73·9	76·5	83·4	77·4	80·5	85·3	79·5	82·9	90·4	83·1	86·2	93·0	87·5	89·9
25	79·1	76·1	78·1	78·0	74·4	76·1	86·7	74·5	80·2	85·2	80·7	83·2	89·4	82·8	86·2	91·3	83·8	87·8
26	79·1	77·4	78·4	76·6	73·2	75·0	89·3	73·4	81·4	87·3	81·9	84·7	88·7	83·9	85·7	94·2	85·5	89·2
27	79·0	73·0	76·0	76·5	71·6	73·7	90·6	75·1	82·2	90·4	83·0	86·2	89·9	83·9	86·2	90·4	84·1	87·4
28	82·6	76·5	79·3	77·0	*69·9*	*73·4*	89·8	75·8	83·2	87·0	81·5	83·6	91·0	81·0	86·3	92·8	85·8	88·6
29	84·3	78·7	80·9				*91·5*	79·8	*84·6*	84·0	81·3	82·7	91·9	82·8	*87·3*	91·2	85·9	88·2
30	83·0	75·4	78·1				89·8	80·0	83·8	91·4	80·2	85·5	91·9	81·4	87·2	93·1	87·2	89·9
31	82·6	75·5	78·6				88·8	79·7	83·6				87·4	82·2	85·1			
Mean	78·6	74·6	76·7	82·1	77·2	79·8	81·5	75·2	78·3	88·4	78·8	83·6	88·7	80·1	84·3	90·8	83·7	87·0

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	degrees Absolute																	
1	98·6	88·7	92·5	94·0	84·1	88·8	91·1	83·5	86·9	*93·6*	84·1	*88·9*	80·4	77·1	*78·7*	*84·0*	78·2	*80·4*
2	00·8	87·3	*94·9*	94·8	87·9	90·9	90·4	84·6	87·1	93·0	84·3	88·6	81·9	*75·3*	78·8	82·2	77·2	80·3
3	00·2	88·3	94·3	95·4	87·5	91·2	89·4	85·5	87·3	92·0	84·9	88·6	86·2	81·9	84·0	80·8	76·0	78·4
4	93·3	86·3	90·7	98·2	85·0	92·2	89·2	86·7	87·5	89·7	83·8	86·7	*89·9*	77·8	84·1	79·9	75·3	77·2
5	91·9	85·9	88·8	*99·2*	86·8	*93·2*	90·7	85·4	87·9	88·4	85·3	86·8	83·1	76·6	80·3	77·6	73·0	75·7
6	93·4	85·2	89·2	94·7	88·7	91·0	90·1	83·2	86·1	87·1	80·5	85·1	83·4	78·0	81·0	80·3	72·8	77·1
7	94·6	82·8	89·5	93·4	86·7	90·1	89·6	81·5	86·6	88·3	76·4	82·2	82·5	77·3	79·2	79·6	71·5	76·6
8	95·1	84·2	89·8	92·1	85·6	88·3	89·5	86·0	87·5	88·1	77·2	83·2	82·9	79·5	81·0	79·6	74·6	77·7
9	98·1	83·9	91·6	92·4	84·8	88·2	90·1	84·3	87·1	86·6	81·5	84·4	81·0	79·3	80·4	78·7	77·0	78·0
10	99·1	85·5	92·4	91·9	85·6	88·7	89·9	84·0	87·0	87·3	83·8	85·2	82·7	79·0	80·8	78·4	72·0	75·5
11	99·1	86·6	93·3	91·8	82·9	87·9	89·5	86·6	87·9	89·6	82·0	85·2	82·1	80·1	81·1	81·9	73·0	78·5
12	*01·2*	88·4	94·8	92·0	86·5	88·8	90·5	82·7	87·1	86·0	82·6	84·2	83·6	80·6	82·0	77·8	72·2	75·0
13	99·5	89·7	94·7	93·0	86·3	89·0	89·2	83·5	86·5	85·8	83·4	84·4	84·4	80·1	82·1	75·2	70·9	73·0
14	92·5	84·4	89·2	92·8	85·5	87·7	88·6	82·4	86·1	84·4	82·5	83·2	83·0	80·4	82·1	79·6	74·2	77·1
15	91·8	83·1	87·4	91·1	83·9	86·8	90·4	84·1	87·4	83·2	81·3	82·2	84·4	81·2	81·8	77·4	70·4	73·6
16	88·1	82·2	*84·9*	90·0	*79·8*	*85·7*	89·2	*79·6*	*85·3*	84·7	80·7	82·8	82·3	79·9	81·2	74·0	70·8	72·2
17	90·3	*80·1*	85·6	88·4	84·0	86·3	89·3	83·8	86·6	86·7	82·1	84·0	83·2	77·6	80·6	75·5	72·4	73·9
18	90·9	86·9	88·4	91·4	79·9	86·1	89·1	84·6	86·6	86·0	81·6	83·7	83·0	79·1	80·8	74·8	72·1	73·2
19	90·7	86·3	88·4	90·6	84·5	87·6	88·7	83·5	85·9	91·0	83·5	86·4	84·3	79·0	81·1	75·2	72·5	73·7
20	91·0	86·6	88·4	89·7	85·0	87·1	89·6	81·8	87·0	90·0	84·6	87·5	86·8	82·8	*84·7*	74·2	70·4	72·2
21	92·1	86·2	88·6	92·5	83·3	87·4	89·1	81·7	85·5	89·5	83·7	86·5	84·2	79·3	82·3	70·9	*66·0*	*68·8*
22	95·9	86·9	90·7	89·1	83·9	87·2	89·9	85·5	87·2	87·5	83·6	85·6	83·6	76·8	81·1	77·9	70·4	75·2
23	96·0	88·8	92·1	93·2	85·6	89·5	90·7	84·6	88·0	85·6	79·0	83·1	84·6	*75·3*	81·3	77·8	76·1	77·0
24	00·1	87·3	93·6	93·7	87·4	90·1	89·2	84·1	86·4	82·1	76·7	80·2	84·6	82·9	83·5	77·7	73·0	76·0
25	95·1	85·2	90·4	94·0	86·0	89·2	91·7	85·1	88·9	79·9	74·7	77·2	84·7	82·0	83·5	81·0	71·0	77·9
26	99·0	84·7	91·0	92·2	84·8	88·0	94·7	87·4	90·4	82·9	77·0	80·4	83·5	79·7	81·5	79·9	76·2	78·0
27	92·1	86·0	89·2	90·2	82·6	86·9	94·3	86·3	89·9	82·8	77·7	80·9	85·0	79·8	83·7	80·6	75·9	71·2
28	92·2	84·3	88·0	90·7	85·9	88·1	*95·8*	85·9	*91·0*	83·5	75·5	80·0	84·2	82·7	83·5	81·1	76·7	78·4
29	94·2	87·0	90·1	89·7	85·3	87·2	92·3	87·4	89·8	82·7	*73·5*	78·0	83·8	80·8	82·4	78·1	75·0	76·5
30	93·2	87·3	90·3	90·0	84·5	87·0	91·9	84·1	87·7	83·6	77·3	80·8	84·2	79·2	81·1	81·1	73·0	78·3
31	91·6	85·7	88·7	89·4	84·8	86·7				82·7	79·1	80·7				80·7	72·1	77·2
Mean	94·9	85·9	90·4	92·3	85·0	88·5	90·5	84·3	87·4	86·6	80·8	83·8	83·8	79·4	81·7	78·5	73·3	76·1
									Annual	86·4	79·8	83·1						

Mean percentages from readings at exact hours 0h. to 24h., G.M.T.; vapour pressure from daily mean temperature and relative humidity

181 KEW OBSERVATORY: North-wall screen: h_t = 3·0 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.
	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.
1	81·7	5·1	86·0	9·6	81·5	5·2	59·7	7·5	64·7	9·9	79·4	11·4	82·0	18·6	72·6	13·0	82·5	13·1	77·6	14·0	84·7	7·8	80·3	*8·3*
2	70·3	4·4	84·0	8·6	82·2	5·4	63·5	9·1	66·3	9·6	70·8	10·4	76·7	20·2	81·0	16·6	80·0	12·9	83·7	14·9	93·5	8·6	79·0	8·1
3	79·1	4·3	86·4	10·4	84·7	5·7	57·7	10·3	71·7	9·4	67·7	*10·3*	74·7	18·9	70·3	14·7	90·3	14·7	92·0	16·3	92·6	12·2	81·2	7·3
4	84·5	5·6	79·6	8·5	*93·1*	5·9	66·9	*11·5*	65·9	8·3	80·8	11·4	77·3	15·7	75·2	16·7	91·0	15·0	83·4	13·1	86·5	11·4	77·7	6·4
5	86·7	8·2	72·3	7·5	91·9	6·7	81·7	9·8	70·6	7·3	82·1	13·1	69·2	12·4	72·8	*17·2*	82·1	13·9	81·4	12·8	*96·7*	9·9	91·8	6·9
6	87·9	8·9	86·3	9·7	78·4	5·5	63·4	6·6	70·5	8·2	69·7	11·3	63·2	11·7	73·1	15·0	90·1	13·6	72·7	10·3	86·6	9·3	87·7	7·2
7	89·0	8·0	85·6	*11·6*	*58·2*	4·2	60·9	7·1	66·5	9·8	*64·1*	10·7	62·5	11·7	73·3	14·3	89·0	13·9	83·3	9·7	87·3	8·4	90·3	7·1
8	89·6	9·2	86·0	10·9	59·3	*3·9*	75·5	9·3	86·4	9·8	84·3	13·9	69·4	13·3	78·6	13·7	*94·4*	15·6	81·7	10·2	82·0	8·8	87·3	7·5
9	89·5	10·6	61·5	5·7	64·7	4·2	57·7	6·3	59·3	7·4	80·2	11·9	70·1	15·1	79·8	13·8	77·9	12·5	75·0	10·1	83·5	8·6	86·2	7·5
10	84·4	10·3	82·9	8·5	77·2	5·2	60·1	*5·5*	*55·8*	8·0	80·3	12·1	68·8	15·5	84·4	15·1	80·4	12·8	65·9	9·4	78·7	8·3	90·8	6·6
11	91·6	*12·7*	79·2	8·1	82·5	6·0	63·1	6·4	69·5	8·7	83·0	10·8	74·2	17·7	77·3	13·1	83·5	14·1	*63·9*	9·1	81·9	8·8	91·2	8·2
12	74·9	8·0	87·3	9·7	75·3	7·0	68·3	8·0	69·6	9·6	79·3	11·1	66·7	17·4	79·2	14·2	83·0	13·3	77·4	10·3	80·6	9·2	95·2	6·7
13	75·5	6·3	*94·8*	10·8	85·4	7·4	71·9	9·4	60·8	7·1	68·8	10·4	65·2	16·9	*65·9*	12·0	75·3	11·6	79·0	10·6	75·7	8·7	*98·5*	6·0
14	*61·3*	4·2	92·8	10·7	79·0	6·0	70·3	9·5	65·0	6·6	72·7	11·5	61·9	11·4	76·5	12·8	89·7	13·5	78·5	9·8	94·2	10·9	95·7	7·8
15	64·1	4·4	86·7	9·4	72·7	5·4	68·3	9·6	62·3	*6·5*	*85·2*	13·3	*56·5*	9·3	75·1	11·9	*73·3*	12·0	74·3	8·7	92·7	10·5	*69·0*	4·4
16	74·7	5·0	81·5	9·5	61·7	4·1	69·7	10·1	80·4	8·1	85·1	13·0	*85·0*	11·8	77·7	*11·4*	83·5	11·9	74·9	9·1	89·5	9·7	69·7	*4·0*
17	69·7	4·4	75·6	7·6	78·3	5·8	74·0	10·8	71·1	8·2	78·2	12·3	81·7	11·9	80·0	12·2	85·3	13·3	74·3	9·7	92·3	9·6	74·3	4·8
18	69·3	*4·1*	83·0	9·2	92·4	9·7	69·3	8·5	70·9	9·5	70·5	10·9	81·4	14·2	78·1	11·8	91·5	14·2	72·6	9·3	*70·3*	*7·4*	75·6	4·7
19	76·5	4·7	75·1	8·9	77·8	9·2	59·5	6·7	81·8	10·6	78·6	10·7	82·4	14·4	86·9	14·5	81·4	12·1	84·6	13·0	92·8	10·0	86·2	5·5
20	*95·1*	4·6	56·3	5·3	72·8	8·4	62·2	8·0	73·0	10·2	75·8	11·0	72·9	12·7	83·6	13·5	85·5	13·6	90·7	*15·0*	90·8	*12·5*	80·2	4·6
21	91·3	4·7	*55·3*	4·1	81·5	9·9	*56·9*	7·4	75·6	10·5	72·8	11·8	75·9	13·5	70·1	11·5	77·0	*11·2*	93·5	14·5	83·5	9·8	94·3	4·1
22	89·1	5·8	66·0	5·1	90·7	10·3	60·0	7·3	74·2	10·8	68·1	12·6	84·9	17·2	*91·3*	14·8	85·1	13·8	*95·3*	13·9	75·7	8·2	94·3	6·7
23	81·0	5·7	65·0	6·4	73·5	7·9	76·0	9·7	68·3	11·0	74·5	15·0	77·9	17·2	89·1	16·7	83·8	14·3	79·5	9·8	91·3	10·0	88·7	7·2
24	91·2	6·5	58·8	4·6	86·0	8·9	71·9	8·8	81·6	12·4	76·9	14·8	74·6	18·1	85·3	16·6	83·4	12·8	64·8	6·6	91·0	11·5	91·3	6·9
25	93·8	8·2	75·7	5·8	78·1	7·9	88·1	11·0	71·7	10·9	75·7	12·8	66·2	13·1	80·0	14·7	90·9	16·4	66·5	*5·5*	86·1	10·9	92·7	8·0
26	94·3	8·5	92·0	6·5	67·0	7·4	80·2	11·0	*89·4*	*13·1*	79·7	14·7	78·2	16·2	72·3	12·3	87·8	*17·5*	87·5	9·0	81·5	9·1	89·8	7·8
27	90·8	6·9	76·6	4·9	69·7	8·1	75·0	11·4	85·2	12·9	80·8	13·3	72·6	13·4	78·9	12·5	89·4	17·2	88·8	9·5	89·7	11·5	88·1	7·8
28	92·9	8·9	69·6	*4·4*	79·1	9·9	89·4	11·4	79·5	12·1	74·1	13·1	75·2	12·8	81·8	14·0	81·2	16·8	76·7	7·7	86·4	11·0	85·0	7·6
29	76·8	8·2			77·2	*10·5*	*94·3*	11·3	77·3	12·6	71·0	12·3	70·0	13·6	76·4	12·4	89·5	17·1	81·7	7·1	88·6	10·5	94·1	7·4
30	71·1	6·3			79·1	10·2	73·5	10·7	79·6	12·9	83·0	*16·0*	77·9	15·4	76·2	12·2	87·2	14·6	73·5	7·8	87·8	9·5	91·3	8·1
31	87·0	7·9			63·0	8·1			80·5	11·4			67·2	12·0	84·4	13·2			77·4	8·1			86·8	7·2
Mean*	82·4	6·8	77·9	7·9	77·2	7·1	69·6	9·0	72·4	9·8	76·4	12·3	73·0	14·6	78·3	13·8	84·8	14·0	79·1	10·5	86·5	9·8	86·6	6·7

* Mean of the column.

RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

182 KEW OBSERVATORY: h_t = 3·0 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	per cent.																									
Jan.	85·2	85·0	84·8	84·7	84·9	84·2	84·5	84·2	84·6	84·9	83·9	81·1	78·2	75·9	*75·2*	75·3	77·2	79·3	81·9	83·3	84·7	84·4	*85·5*	*85·5*	85·0	82·4
Feb.	81·1	81·4	82·5	82·5	83·7	84·3	85·1	85·5	*85·6*	83·0	80·3	76·3	72·0	69·6	69·7	68·6	*68·4*	70·5	72·7	74·3	76·1	78·4	79·5	79·6	80·4	77·9
Mar.	84·8	85·7	86·2	86·5	86·6	*87·5*	86·5	86·3	84·5	80·7	76·1	70·9	66·9	65·3	64·3	*63·3*	64·1	66·4	69·7	73·1	76·3	78·2	80·9	83·2	84·8	77·2
Apr.	79·4	82·2	83·5	85·1	86·3	86·5	*87·6*	84·8	79·6	72·1	65·7	59·9	55·4	53·6	51·1	*50·5*	50·9	51·0	55·6	61·5	67·1	70·5	74·4	76·4	79·8	69·6
May	82·5	85·1	86·7	87·1	*87·6*	87·5	85·6	81·4	77·5	73·3	70·2	66·8	63·6	61·0	58·5	57·2	56·6	*55·3*	55·6	61·0	67·7	71·9	77·2	80·9	82·5	72·4
June	86·8	89·1	90·2	90·4	*90·7*	89·9	88·0	84·9	78·9	73·3	69·0	66·9	63·9	63·3	63·3	*62·0*	62·5	64·7	67·2	70·0	74·4	78·1	82·2	84·8	86·9	76·4
July	83·8	85·9	86·7	88·4	*88·8*	88·7	86·5	81·5	75·9	72·3	67·8	63·9	61·0	59·3	58·6	*58·5*	58·9	58·9	60·3	63·1	69·3	74·7	78·2	81·0	83·6	73·0
Aug.	87·8	88·6	89·7	*90·7*	90·6	90·5	89·7	86·8	82·3	77·8	73·6	70·9	69·0	66·9	63·8	*62·6*	63·4	64·2	67·1	73·3	77·7	81·6	83·9	86·5	88·0	78·3
Sept.	90·2	91·1	91·5	92·1	92·0	92·5	*93·3*	91·7	88·4	84·2	79·1	78·3	75·3	*72·8*	74·2	74·1	75·6	77·6	81·8	85·9	87·5	88·5	88·8	89·4	90·1	84·8
Oct.	85·3	85·8	86·2	86·7	86·9	*87·3*	86·7	86·3	84·3	80·7	76·5	72·6	69·5	68·0	*67·2*	67·9	69·5	72·3	75·7	77·6	78·9	81·2	81·9	84·2	85·2	79·1
Nov.	89·0	89·7	*89·9*	89·3	88·9	88·8	89·3	89·3	89·7	87·8	85·9	84·6	82·2	80·8	*79·6*	80·4	82·1	84·1	86·4	86·5	87·5	87·5	87·8	88·6	89·1	86·5
Dec.	88·6	88·3	88·9	89·4	*89·8*	89·0	88·5	88·6	88·5	87·5	86·3	84·9	82·3	81·2	*80·5*	80·8	83·5	84·8	85·5	86·9	88·7	88·4	88·7	88·7	88·7	86·6
Annual	85·4	86·5	87·2	87·8	*88·1*	88·1	87·6	85·9	83·3	79·8	76·3	73·1	69·9	68·1	67·1	*66·7*	67·7	69·1	71·6	74·7	78·0	80·3	82·4	84·1	85·4	78·7

VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T., computed from corresponding mean values of temperature and relative humidity

183 KEW OBSERVATORY: h_t = 3·0 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	millibars																									
Jan.	6·7	6·7	6·6	6·5	6·5	6·4	6·3	6·3	*6·2*	6·3	6·4	6·5	6·5	6·5	6·5	6·5	6·5	6·5	6·6	6·7	6·8	6·8	*6·9*	6·9	6·9	6·6
Feb.	7·5	7·7	7·7	7·7	7·7	7·8	7·9	7·9	7·9	*7·9*	7·9	7·9	7·8	7·7	7·7	7·6	7·5	7·5	7·5	7·5	7·5	7·5	7·5	7·4	*7·4*	7·7
Mar.	6·9	6·9	6·8	6·7	6·7	6·6	6·6	*6·6*	6·7	6·9	6·9	6·8	6·9	6·8	6·9	6·9	6·9	6·9	7·0	7·0	6·9	7·0	*7·0*	7·0	7·0	6·9
Apr.	8·7	8·8	8·7	8·7	8·6	8·5	8·6	*9·1*	9·0	9·0	9·0	8·7	8·6	8·5	8·4	8·5	*8·3*	8·4	8·7	8·9	9·0	8·9	8·9	8·7	8·9	8·7
May	9·4	9·4	9·3	9·3	9·3	9·3	9·7	9·7	9·9	9·9	*9·9*	9·8	9·8	9·8	9·7	9·6	9·4	9·2	*9·1*	9·3	9·5	9·4	9·5	9·5	9·4	9·5
June	12·2	12·4	12·3	12·2	12·1	12·0	12·3	*12·5*	12·3	11·9	11·7	11·7	*11·6*	11·8	11·9	11·7	11·7	11·9	12·2	12·2	12·2	12·3	12·4	12·5	12·5	12·1
July	14·4	14·2	14·1	13·9	*13·9*	14·1	14·5	14·5	14·4	*14·6*	14·4	14·4	14·2	14·2	14·3	14·3	14·3	14·3	14·2	14·3	14·4	14·3	14·2	14·1	14·3
Aug.	13·8	13·7	13·6	13·5	13·4	13·3	13·6	13·7	13·8	13·9	13·8	13·7	13·7	13·7	13·3	13·2	13·3	*13·2*	13·5	13·8	13·7	13·9	13·9	*14·0*	13·8	13·6
Sept.	13·7	13·8	13·7	13·7	13·5	*13·4*	13·5	13·6	13·9	14·1	13·9	14·0	13·9	13·8	14·0	13·9	14·0	14·1	*14·2*	14·1	14·1	14·1	13·9	13·9	13·8	13·9
Oct.	10·3	10·3	10·1	10·1	10·2	10·1	*10·0*	10·1	10·2	10·4	*10·4*	10·4	10·2	10·2	10·2	10·2	10·1	10·1	10·3	10·2	10·1	10·2	10·0	10·1	10·1	10·2
Nov.	9·6	9·6	9·6	9·5	9·5	*9·4*	9·5	9·5	9·6	9·6	9·7	9·9	9·9	*9·9*	9·8	9·9	9·9	9·8	9·9	9·8	9·8	9·7	9·6	9·7	9·6	9·7
Dec.	6·6	6·4	6·5	6·4	6·5	*6·4*	6·5	6·5	6·5	6·5	6·7	6·8	6·8	*6·9*	6·9	6·8	6·8	6·8	6·7	6·7	6·7	6·7	6·7	6·6	6·5	6·6
Annual	9·7	9·7	9·5	9·5	9·5	*9·4*	9·6	9·7	9·7	9·8	*9·8*	9·8	9·7	9·8	9·7	9·7	9·7	9·7	9·8	9·8	9·8	9·8	9·7	9·7	9·7	9·7

* Mean of values, 1,2,.....23,½(0 + 24).

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

184 KEW OBSERVATORY: h_r(height of receiving surface above M.S.L.) = height of station above M.S.L. + height of receiving surface above ground = 5·5 m. + 0·53 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	0·1	...	...	6·8	2·9	*54*	...	...	...	...	...	...	...	...	...	2·5	1·4	35
2	...	...	...	4·8	1·9	45	1·1	3·5	...	...	...	...	...	...	...	1·7	1·9	7
3	...	...	...	8·8	9·2	45	1·3	3·9	...	...	...	...	0·4	0·9	...	8·7	4·2	23
4	...	...	...	1·9	1·3	24	3·7	8·9	...	...	...	...	...	...	...	1·4	2·4	...
5	...	...	...	...	...	...	4·8	*13·9*	...	5·4	9·1	*16*	0·2	0·2	7	0·1	0·1	...
6	...	...	...	4·4	5·0	6	0·9	4·0	...	...	...	...	0·6	1·2	...	...	...	...
7	...	...	...	0·6	1·4	...	...	...	...	...	...	...	...	...	...	...	...	...
8	0·5	2·6	...	7·0	4·2	30	...	...	...	...	...	...	*24·4*	*10·5*	31	8·8	4·8	11
9	*10·1*	7·2	7	0·3	0·6	...	...	...	...	...	...	...	...	...	...	0·8	1·1	...
10	1·5	2·2	7	2·8	3·5	6	0·1	...	...	...	...	...	...	...	...	2·1	2·2	21
11	7·3	7·0	9	...	...	...	...	...	...	...	...	...	0·2	0·3	6	*11·8*	*6·0*	27
12	...	...	...	0·1	0·2	...	0·1	0·1	...	...	...	...	1·7	1·9	7	3·0	2·0	6
13	0·2	0·1	...	0·7	3·1	...	0·2	0·2	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·1	0·2	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6·7	5·4	20
16	...	...	...	0·8	1·3	...	...	...	...	...	...	...	7·8	4·7	22	2·0	2·7	...
17	...	...	...	...	...	...	0·3	0·6	...	1·4	2·8	...	...	...	...	0·3	1·0	...
18	0·3	1·5	...	...	...	...	0·4	1·3	...	0·2	0·5	...	4·2	0·9	*54*	4·1	1·5	*73*
19	...	...	...	0·7	1·2	6	...	...	...	...	...	...	18·1	6·4	28	3·3	4·5	6
20	...	...	...	0·4	0·4	6	...	...	...	...	...	...	...	...	...	0·3	0·4	...
21	...	...	...	...	...	...	6·4	5·2	*20*	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	*10·4*	12·1	17	...	...	...	...	...	...	...	...	...
23	0·1	0·5	...	4·7	4·4	18	...	...	...	1·6	3·4	6	...	...	...	...	...	...
24	0·4	0·7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	...	0·5	1·6	...	...	...	...	5·3	10·0	...	...	...	...	1·8	2·3	...
26	2·9	6·2	6	*12·0*	*17·3*	...	...	...	...	2·3	3·7	...	13·9	3·7	27	2·0	2·0	...
27	...	...	...	...	...	...	...	...	...	0·9	0·9	9	8·2	3·2	16	4·3	2·5	13
28	4·1	4·8	8	0·1	...	...	...	...	...	8·6	6·0	14	2·8	1·5	...	4·7	5·4	6
29	4·6	3·3	*45*				...	...	...	*20·5*	*13·9*	14	0·4	0·9	...	...	...	...
30	2·1	0·9	22				...	...	...	2·3	1·6	*16*	...	...	...	...	...	...
31	1·0	2·9	6				...	...	...				5·1	3·9	15			
Total	35·2	39·9	-	57·4	59·5	-	29·7	53·7	-	48·5	51·9	-	88·0	40·3	-	70·5	54·0	-

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	...	...	...	...	...	...	1·0	0·2	36	0·1	0·1	...	4·1	4·9	11	5·3	4·1	8
2	...	...	...	...	...	...	2·2	2·4	8	...	...	...	4·8	6·9	7	...	...	...
3	...	...	...	...	...	...	6·1	5·3	31	*8·5*	0·6	*87*	0·2	1·1	...	3·7	2·1	17
4	5·5	4·1	7	...	...	...	6·6	*7·9*	11	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	0·5	0·3	15	0·1	0·2	7	...	...	...	3·1	4·7	...
6	...	...	...	...	...	...	3·5	1·6	33	0·5	1·2	...	...	...	...	...	...	...
7	...	...	...	4·5	1·1	*62*	2·4	2·8	21	...	...	...	1·0	1·0	9	2·9	3·7	9
8	...	...	...	7·5	4·8	20	*46·4*	5·8	*77*	...	...	...	2·7	2·9	13	*12·5*	*7·5*	12
9	...	...	...	*14·9*	6·3	25	...	...	...	...	...	...	1·0	1·1	7	0·3	0·4	6
10	...	...	...	12·2	4·2	43	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	0·5	0·7	6	...	...	...	...	...	...	...	...	...	4·1	4·3	6
12	...	...	...	3·0	3·0	22	...	...	...	...	...	...	0·1	0·3	...	...	...	...
13	...	...	...	1·2	1·1	13	1·6	2·0	...	...	...	...	...	...	...	0·1	...	...
14	0·5	0·4	9	4·6	1·3	63	1·6	2·4	...	...	...	...	*17·7*	*14·3*	27	...	...	...
15	0·9	0·8	...	...	...	...	...	...	...	...	...	...	1·9	3·0	8	...	...	...
16	4·8	*5·7*	...	9·7	5·8	8	...	...	...	...	...	...	0·6	1·4	...	...	...	...
17	2·5	1·3	33	11·8	*8·3*	9	0·1	0·5	...	...	...	...	3·9	3·8	12	...	...	...
18	4·0	1·1	27	...	...	...	4·7	4·8	16	...	...	...	...	...	...	...	...	...
19	0·7	0·5	16	0·8	2·0	...	1·9	2·6	...	0·8	1·1	7	7·1	7·5	6	4·9	7·0	...
20	...	...	...	2·0	2·5	7	7·6	4·6	8	2·1	1·2	32	3·6	3·9	31	...	...	...
21	1·5	2·0	7	0·1	0·1	...	...	...	...	4·1	1·0	37	17·0	3·4	*76*	...	...	...
22	...	...	...	3·6	2·7	31	0·7	0·6	14	8·4	4·3	24	1·6	1·1	7	...	...	...
23	...	...	...	0·5	1·2	...	0·9	1·9	7	0·3	0·7	...	5·6	7·0	...	0·8	1·0	...
24	...	...	...	3·1	0·3	42	...	...	...	...	...	...	13·0	11·3	44	1·1	2·0	6
25	...	...	...	...	...	...	...	...	...	...	...	...	0·9	1·3	...	0·8	1·1	*20*
26	*53·3*	1·9	*200*	...	...	...	...	...	...	4·2	3·7	19	...	...	...	3·3	1·5	*20*
27	3·5	0·4	87	...	...	...	0·1	0·4	...	4·1	*4·8*	...	3·2	5·2	...	1·3	0·5	13
28	1·8	2·9	11	12·9	4·7	56	...	...	...	...	...	...	1·2	3·3	...	...	...	...
29	0·1	0·6	...	0·3	0·2	14	...	...	...	...	...	...	7·6	3·6	23	...	...	...
30	...	...	...	0·3	0·2	...	0·1	0·5	...	...	...	...	4·3	2·9	19	1·9	2·1	6
31	...	...	...	1·4	0·5	26				0·5	0·5	10				3·3	3·7	10
Total	79·1	21·7	-	94·9	51·0	-	88·0	46·6	-	33·7	19·4	-	103·1	90·4	-	49·4	45·7	-

RAINFALL

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

185 KEW OBSERVATORY: h_r = 5·5 m. + 0·53 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	millimetres																								
Jan.	2·5	1·0	0·7	0·2	···	0·5	0·2	0·8	0·8	···	···	0·7	0·4	0·2	1·4	0·8	1·9	4·6	3·4	4·2	*5·0*	1·6	2·5	1·7	35·2
Feb.	1·0	2·7	2·1	1·7	2·8	2·7	2·2	3·6	4·2	4·1	1·7	1·6	2·6	*4·7*	2·2	2·3	1·1	2·8	1·1	1·3	0·6	0·8	3·2	4·3	57·4
Mar.	0·6	0·9	1·5	1·6	1·7	0·8	0·2	0·2	0·6	0·5	1·9	0·7	1·9	2·3	1·3	*2·4*	1·3	1·1	*2·4*	0·9	0·9	1·3	1·5	1·2	29·7
Apr.	1·1	0·8	3·7	2·3	0·4	2·3	2·8	1·2	0·5	0·3	1·5	4·5	1·4	0·7	2·1	2·0	0·4	0·6	4·0	1·0	3·8	4·2	*5·1*	1·8	48·5
May	7·3	4·0	6·9	1·9	6·7	6·7	*8·2*	4·1	3·4	5·0	4·6	1·5	2·7	1·5	1·4	1·1	0·7	0·8	0·7	2·1	1·6	5·4	3·1	6·6	88·0
June	1·8	4·2	2·5	4·8	5·1	2·0	2·1	1·5	1·0	2·0	2·5	1·5	1·4	4·3	3·7	*7·5*	4·3	1·9	3·6	2·1	3·8	2·0	2·3	2·6	70·5
July	1·7	2·3	1·3	0·5	0·2	1·6	2·0	1·5	2·1	···	···	0·4	0·8	0·7	2·1	*50·6*	2·7	···	0·1	0·8	3·6	0·8	1·9	1·4	79·1
Aug.	8·2	7·6	3·0	3·3	6·9	2·2	2·6	2·6	1·7	1·5	1·5	3·2	4·3	1·9	···	0·1	0·3	4·9	6·8	5·5	4·2	6·0	*10·3*	6·3	94·9
Sept.	4·4	13·6	0·3	0·3	1·4	1·0	1·4	0·5	0·8	1·8	*16·9*	14·2	4·4	0·6	2·9	1·0	6·1	2·5	4·0	4·0	0·9	1·6	1·5	1·9	88·0
Oct.	5·9	0·2	0·2	0·3	0·2	···	0·7	0·8	1·2	0·9	0·6	2·3	1·1	1·4	1·1	*6·8*	2·2	1·4	0·7	3·1	0·5	1·8	0·3	···	33·7
Nov.	2·0	3·8	2·9	2·4	1·5	1·7	4·4	4·6	5·9	3·6	8·8	3·5	*9·6*	5·1	3·3	4·0	8·5	6·8	8·0	3·4	2·1	2·5	2·0	2·7	103·1
Dec.	0·6	1·1	3·0	1·2	0·7	0·3	0·6	1·4	2·3	1·5	3·2	2·2	2·3	3·9	3·0	2·3	1·5	*7·2*	3·5	2·2	2·2	2·2	0·2	0·8	49·4
Annual	37·1	42·2	28·1	20·5	27·6	21·8	27·4	22·8	24·5	21·2	43·2	36·3	32·9	27·3	24·5	*80·9*	31·0	34·6	38·3	30·7	29·2	30·2	33·9	31·3	777·5

RAINFALL

Monthly and annual totals of durations in sixty-minute periods between exact hours, G.M.T.

186 KEW OBSERVATORY: h_r = 5·5 m. + 0·53 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	hours																								
Jan.	1·2	1·3	1·4	0·3	···	0·6	0·1	1·4	1·1	···	···	0·5	0·7	0·3	0·5	1·7	2·7	5·3	*6·0*	5·1	3·2	3·0	2·5	1·0	39·9
Feb.	2·5	1·6	1·5	2·8	3·5	3·8	3·6	*4·4*	4·1	3·8	2·5	2·1	1·8	3·1	2·7	2·4	1·4	2·4	2·3	1·4	0·8	1·4	1·6	2·0	59·5
Mar.	2·2	3·4	3·2	2·3	*3·5*	1·7	0·6	0·5	1·0	1·0	2·9	2·4	3·1	2·8	2·8	2·6	2·4	2·4	3·4	0·9	1·5	1·8	2·8	2·5	53·7
Apr.	1·6	2·3	3·8	2·9	0·6	3·3	2·7	1·9	1·7	1·1	1·8	2·4	1·3	0·7	1·2	2·1	1·4	1·9	2·4	2·3	*3·9*	2·7	2·9	3·0	51·9
May	1·3	2·6	1·9	1·7	2·1	2·6	2·6	*3·1*	2·6	2·3	2·1	1·3	2·5	1·1	1·3	1·6	0·9	0·5	0·4	1·0	1·0	1·5	1·3	1·0	40·3
June	2·2	3·3	*4·1*	2·3	3·4	2·6	1·7	1·2	1·7	1·3	2·4	2·0	1·7	2·4	1·8	2·0	3·7	2·2	1·2	1·2	2·0	2·0	2·5	3·2	54·0
July	1·9	1·3	1·8	1·2	0·7	2·0	1·1	0·9	0·5	···	···	0·3	0·1	0·1	1·0	1·0	1·0	···	0·2	0·5	0·7	1·2	2·0	2·2	21·7
Aug.	3·5	2·7	2·2	2·9	2·5	2·6	3·1	3·2	1·5	1·7	2·0	1·7	1·4	0·3	···	0·2	0·3	2·5	1·8	2·2	3·2	2·7	*4·0*	2·9	51·0
Sept.	*3·4*	2·4	1·0	0·2	2·3	1·6	2·1	1·1	0·6	1·7	3·0	1·9	2·1	1·4	2·6	1·8	2·6	2·0	1·8	2·9	2·2	1·9	1·3	2·7	46·6
Oct.	1·0	0·5	0·2	0·6	0·4	···	0·6	1·0	1·5	1·0	1·0	0·9	1·3	1·3	0·3	1·6	2·2	1·0	0·5	0·6	0·3	1·0	0·6	···	19·4
Nov.	2·6	4·1	3·2	2·5	1·9	2·5	4·9	3·4	3·2	4·0	*5·6*	4·8	5·5	4·3	2·7	4·7	5·5	4·3	4·6	4·2	3·2	2·4	3·2	3·1	90·4
Dec.	1·2	1·5	0·8	1·4	1·0	0·7	0·7	1·3	1·7	3·0	3·0	2·2	2·6	2·6	2·9	2·3	1·5	3·1	*3·6*	2·7	2·2	1·9	0·6	1·2	45·7
Annual	24·6	27·0	25·1	21·1	21·9	24·0	23·8	23·4	21·2	20·9	26·3	22·5	24·1	20·4	19·8	24·0	25·6	27·5	*28·2*	25·0	24·2	23·5	25·2	24·8	574·1

NOTES ON RAINFALL

187 KEW OBSERVATORY

Dry Periods

The following definitions are adopted by the British Rainfall Organization
An "absolute drought" is a period of at least 15 consecutive days to none of which is credited 0·2 mm. of rain or more
A "partial drought" is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0·2 mm.
A "dry spell" is a period of at least 15 consecutive days to none of which is credited 1·0 mm. of rain or more

"Absolute drought": None in 1946
"Partial drought": March 23-April 22
"Dry spell": October 4-19

Wet Periods

The following definitions are adopted by the British Rainfall Organization
A "rain spell" is a period of at least 15 consecutive days to each of which is credited 0·2 mm. of rain or more
A "wet spell" is a period of at least 15 consecutive days to each of which is credited 1·0 mm. of rain or more

"Rain spell": No occasions
"Wet spell": No occasions

Rainfall Duration

Hours	0·1-1·0	1·1-2·0	2·1-6·0	6·1-12·0	>12·0
Number of days	49	41	72	18	5

Continuous or Heavy Falls

The fall of the longest duration occurred on February 26 when 11 mm. fell in 15 hr. On November 14 there was a fall of 15 mm. in 11 hr.

Heavy Falls in short periods

On July 26, 10 mm. fell in 3 min., 25 mm. in 12 min., and 50 mm. in 35 min., the latter measurement comes within the category of "Very Rare Falls" as now defined. (See British Rainfall, 1935, p.274). On September 8, 5 mm. fell in 6 min., 10 mm. in 16 min. and 25 mm. in 90 min.

Rates of Rainfall (Jardi Recorder)

At 15 hr. 55 min. on July 26 an instantaneous rate of rainfall of 200 mm./hr. is estimated to have occurred. This is the highest rate since records commenced in 1933. The maximum rate exceeded 50 mm./hr. on February 1, May 18, June 18, July 26 and 27, August 7, 14 and 28, September 8, October 3, and November 21.

DURATION OF BRIGHT SUNSHINE AND TOTAL SOLAR RADIATION FOR EACH DAY

Solar radiation received on a surface perpendicular to the solar beam

188 KEW OBSERVATORY: h_g(height of recorder above ground) = 13·3 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation
	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}
1	1·2	15	250	2·8	31	250	···	···	80	9·5	74	1300	11·8	80	2030	7·0	43	1080
2	···	···	···	1·4	15	160	···	···	30	9·5	73	1240	0·3	2	60	7·6	47	840
3	5·0	63	440	···	···	···	0·1	1	10	9·7	75	1430	8·1	54	1170	8·8	54	1370
4	1·1	14	150	1·2	13	130	···	···	···	7·7	59	1080	11·7	78	2360	0·6	4	60
5	···	···	···	3·1	33	520	···	···	···	···	···	···	4·1	27	940	4·1	25	880
6	1·5	19	160	0·4	4	30	···	···	···	11·3	85	2280	4·5	30	440	9·7	60	1730
7	4·2	52	470	···	···	···	0·6	5	30	9·5	72	2490	8·0	53	1200	8·6	53	1880
8	···	···	···	···	···	···	2·5	22	210	0·4	3	20	···	···	···	0·2	1	30
9	···	···	···	7·0	*73*	1120	1·3	11	200	9·3	69	1430	11·2	73	2180	3·2	19	620
10	1·0	12	80	2·5	26	460	8·3	73	1050	9·0	67	1460	*12·9*	*84*	*2370*	2·2	13	270
11	···	···	···	2·0	21	230	0·3	3	20	7·0	52	1660	6·0	39	1090	2·5	15	480
12	*6·8*	*84*	*1240*	···	···	···	0·3	3	50	11·9	*88*	2400	8·2	53	1290	6·2	38	1060
13	2·9	35	400	···	···	···	···	···	···	9·8	72	1310	7·7	50	1370	9·0	55	1540
14	3·3	40	370	···	···	···	···	···	···	9·0	66	990	3·9	25	790	6·0	37	1200
15	5·1	62	620	···	···	···	···	···	···	7·0	51	750	8·0	51	1640	3·6	22	360
16	0·8	10	60	0·3	3	40	···	···	···	10·2	74	1920	4·6	29	510	4·6	28	820
17	2·1	25	220	5·5	55	780	1·5	12	100	0·5	4	140	12·1	77	1910	5·1	31	630
18	2·8	33	250	···	···	···	···	···	···	2·8	20	290	3·1	20	510	9·4	57	2080
19	3·9	46	450	1·9	19	210	1·0	8	240	*12·4*	*88*	2520	6·4	41	1300	2·8	17	270
20	···	···	40	6·8	67	1130	3·1	25	540	*12·4*	*88*	*2550*	4·2	26	680	8·6	52	1590
21	···	···	···	5·4	53	890	1·3	11	210	10·5	75	2230	9·0	57	1370	*11·2*	*67*	*2160*
22	0·7	8	50	2·4	23	310	···	···	···	10·7	75	1700	9·4	59	1940	4·5	37	710
23	···	···	···	5·6	54	930	8·7	71	*2100*	5·6	39	1040	6·0	38	730	10·4	63	1570
24	1·7	20	210	7·0	67	*1600*	···	···	···	1·4	10	120	0·2	1	30	4·8	29	820
25	···	···	···	···	···	···	8·8	71	1520	···	···	···	2·9	18	40	5·1	31	930
26	···	···	···	···	···	···	9·6	*77*	1910	···	···	···	···	···	···	4·9	30	750
27	3·9	45	390	*7·7*	72	1270	5·7	45	710	0·9	6	120	4·6	29	870	2·9	17	600
28	1·5	17	210	4·5	42	590	6·1	48	880	···	···	···	7·9	49	1640	8·6	52	1570
29	0·3	3	70				7·7	61	840	···	···	···	1·5	9	190	5·8	35	1170
30	1·6	18	110				7·3	57	790	10·9	74	2170	7·3	45	1170	1·2	7	160
31	···	···	20				*9·8*	76	1430				5·3	33	810			
Mean	1·66		200	2·41		380	2·70		1120	6·62		1160	6·16		1060	5·64		970

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation
	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}
1	8·0	49	1130	8·0	52	1520	6·9	50	1380	6·7	58	890	1·0	10	100	4·6	57	750
2	12·7	77	1420	0·2	1	20	2·2	16	220	4·9	43	610	0·3	3	···	0·4	5	40
3	11·9	73	2270	7·5	49	990	···	···	···	···	···	20	···	···	···	1·4	24	200
4	1·6	10	190	*13·3*	*88*	*3020*	0·3	2	10	0·7	6	40	*7·6*	*80*	*1610*	*5·6*	*70*	*650*
5	1·8	10	220	7·1	47	950	8·9	68	1460	0·8	7	60	0·8	9	80	···	···	···
6	13·7	*84*	2760	4·6	30	430	0·4	3	30	*9·1*	*81*	*1850*	1·3	14	150	4·2	53	370
7	*13·8*	*84*	2630	4·4	29	530	4·3	33	770	5·5	49	570	···	···	···	1·1	14	120
8	5·5	34	720	4·6	31	790	0·1	1	20	2·0	18	170	2·2	24	170	···	···	···
9	12·4	76	2060	2·9	19	260	5·9	45	1230	1·7	15	90	···	···	···	···	···	···
10	13·3	82	2700	4·8	32	510	4·8	37	980	8·6	78	1430	3·9	43	420	4·8	61	500
11	13·0	80	1870	7·9	53	1360	0·5	4	50	8·1	74	1630	···	···	···	···	···	···
12	10·5	65	1610	5·5	37	590	7·3	57	860	0·1	1	···	···	···	···	4·1	52	490
13	7·1	44	770	6·7	46	1250	3·9	30	570	···	···	···	6·8	76	1030	···	···	100
14	6·8	42	1240	5·4	37	950	0·2	1	···	···	···	···	···	···	···	···	···	···
15	13·0	81	*3100*	6·4	44	890	*11·3*	*89*	*1950*	···	···	···	1·4	16	130	1·9	24	200
16	1·5	9	130	2·4	17	250	4·8	38	1010	···	···	···	···	···	···	···	···	···
17	4·7	29	710	···	···	···	2·7	22	310	0·3	3	30	···	···	···	2·0	26	160
18	1·7	11	100	9·6	67	1830	···	···	···	0·7	7	170	3·5	40	3	3·0	39	280
19	1·1	7	130	0·4	3	30	0·2	2	30	1·5	14	160	···	···	···	···	···	···
20	3·1	19	590	0·7	5	10	0·3	2	30	0·4	4	20	1·2	14	60	4·1	53	500
21	0·7	4	40	7·1	51	1300	8·9	73	1360	2·0	19	260	1·2	14	120	····	···	30
22	4·5	38	450	0·1	1	10	2·0	16	220	···	···	···	1·0	12	100	···	···	···
23	6·9	44	650	2·9	21	420	3·6	30	540	0·2	2	10	···	···	···	···	···	···
24	10·5	67	1440	0·8	6	110	4·0	33	480	5·9	58	850	···	···	···	2·3	30	310
25	12·9	82	2700	6·6	47	1110	1·5	13	150	5·4	54	750	1·4	17	80	···	···	···
26	5·5	35	590	7·0	50	970	2·1	17	240	···	···	10	4·2	51	720	3·5	45	400
27	11·5	74	2540	5·0	36	940	8·6	73	1630	···	···	···	0·2	2	···	1·0	13	60
28	7·4	48	1440	8·2	60	1200	9·6	76	1170	5·6	57	470	···	···	···	2·8	36	360
29	12·5	81	2220	5·7	42	940	4·0	34	520	5·1	52	520	0·9	11	70	···	···	70
30	3·2	21	200	9·4	69	1410	7·4	64	1680	0·3	3	20	0·5	6	20	0·9	11	60
31	5·7	47	770	3·4	25	410				1·4	15	100				1·8	23	250
Mean	7·70		1270	5·11		810	3·87		630	2·48		350	1·31		170	1·62		190
								Annual Mean		3·93		640						

See Introduction for corrections to tabulated values of radiation.

DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

189 KEW OBSERVATORY: h_s(height of recorder above ground) = 13·3 m.

	Hour L.A.T. 3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total	Per cent. of possible
	hours																			%
Jan.	–	–	–	–	···	1·4	6·7	7·2	9·4	8·9	*10·2*	6·1	1·5	···	–	–	–	–	51·4	20
Feb.	–	–	–	···	1·7	5·7	6·9	9·7	*10·1*	8·4	9·3	8·0	6·4	1·3	···	–	–	–	67·5	24
Mar.	–	–	···	0·9	5·5	6·2	9·4	9·9	8·8	9·6	*10·2*	9·9	9·1	4·1	0·4	···	–	–	84·0	23
Apr.	–	···	1·9	9·0	14·4	18·7	18·9	18·1	19·0	*19·6*	18·2	18·2	16·9	15·9	8·1	2·0	···	–	198·9	48
May	···	0·2	4·1	6·7	11·3	12·6	13·4	14·4	14·3	17·0	*17·6*	17·4	16·4	*17·6*	14·0	11·5	2·4	···	190·9	40
June	···	1·1	6·2	10·4	15·3	*16·7*	14·3	12·9	11·7	11·8	12·2	11·2	11·3	11·9	10·0	7·8	4·4	···	169·2	34
July	···	2·0	11·1	13·7	17·2	16·5	17·0	*20·6*	18·8	19·7	17·2	16·5	16·7	17·0	16·9	13·4	4·2	···	238·5	48
Aug.	–	···	4·0	9·9	12·8	*14·7*	13·0	11·1	11·9	13·0	13·7	14·0	12·2	11·9	9·6	6·3	0·5	–	158·6	35
Sept.	–	–	0·1	4·0	9·1	11·1	*12·9*	12·7	11·0	12·7	11·0	10·1	7·7	9·2	4·2	0·3	–	–	116·1	31
Oct.	–	–	–	···	2·5	5·4	8·7	11·2	*11·8*	11·0	9·8	8·2	6·1	2·3	···	–	–	–	77·0	23
Nov.	–	–	–	···	···	2·9	4·3	5·2	*7·4*	7·3	5·5	4·9	1·6	0·3	–	–	–	–	39·4	15
Dec.	–	–	–	–	···	1·1	6·2	8·4	8·7	*10·8*	10·3	4·4	0·1	–	–	–	–	–	50·0	21
Annual	···	3·3	27·4	54·6	89·8	113·0	131·7	141·4	142·9	*149·8*	145·2	128·9	106·0	91·5	63·2	41·3	11·5	···	1441·5	32

SOLAR RADIATION RECEIVED ON A SURFACE PERPENDICULAR TO THE SOLAR BEAM

Monthly and annual totals between exact hours, local apparent time

190 KEW OBSERVATORY: h_s = 13·3 m.

	Hour L.A.T. 3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total
	joules per square centimetre																		
Jan.	–	–	–	–	20	210	710	880	1230	1140	1140	740	210	···	–	–	–	–	6260
Feb.	–	–	–	···	270	800	1240	1670	1570	1400	1530	1160	820	190	···	–	–	–	10650
Mar.	–	–	···	260	720	930	1190	1300	1440	1740	1740	1630	1220	640	140	···	–	–	12950
Apr.	–	···	250	1320	2070	3070	3440	3350	3830	4010	3680	3280	2910	2190	1020	250	···	–	34670
May	···	100	520	760	1570	2160	2370	2690	2730	3190	3520	3300	3190	3190	2170	1360	170	···	32990
June	···	410	1080	1610	2450	3060	2800	2710	2240	2320	2130	1940	2190	1710	1350	850	380	···	29230
July	···	410	1690	2200	2870	2810	3140	3620	3800	3570	3260	2830	2650	2470	2230	1430	410	···	39390
Aug.	–	50	650	1380	2150	2380	2190	1920	1880	2050	2160	2300	2130	1590	1450	680	40	–	25000
Sept.	–	–	40	550	1550	1820	2400	2280	2080	2050	1690	1610	1150	1070	570	20	–	–	18900
Oct.	–	–	–	···	300	480	830	1660	1680	1760	1530	1280	870	320	10	–	–	–	10720
Nov.	–	–	–	–	···	240	620	760	1080	970	680	560	230	50	–	–	–	–	5190
Dec.	–	–	–	–	···	90	720	1020	1190	1210	1070	520	110	···	–	–	–	–	5930
Annual	···	970	4230	8080	13970	18050	21650	23860	24750	25410	24130	21150	17680	13420	8940	4590	1000	···	231880

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

191 KEW OBSERVATORY: h_a(height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 5 m. + 23 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust
	metres per second																							
1	4·6	14	8·4	21	3·7	12	3·6	10	4·7	13	6·1	17	2·5	7	3·1	13	2·8	12	2·8	11	2·5	11	5·3	18
2	6·0	13	7·6	20	7·1	*19*	3·3	9	5·7	13	5·3	19	2·0	11	4·8	15	3·9	12	1·8	7	*0·9*	6	5·0	13
3	1·8	10	7·9	21	3·8	17	2·7	12	6·2	16	4·2	14	2·0	15	2·5	9	5·3	17	2·1	13	3·9	12	4·1	14
4	2·9	13	6·4	*28*	1·9	7	2·5	11	6·8	16	5·6	17	4·7	16	*1·3*	7	*8·3*	21	3·1	12	1·8	11	4·2	13
5	4·8	13	5·8	20	5·1	14	4·3	17	6·8	*23*	*8·8*	19	3·7	12	1·8	11	5·6	17	3·0	11	0·9	7	1·5	6
6	3·7	12	3·0	13	7·8	18	3·9	13	7·8	18	4·9	14	2·9	13	4·1	13	2·4	12	3·3	10	2·1	6	2·8	10
7	1·9	7	6·9	18	6·5	17	3·1	12	*8·2*	21	*1·0*	7	1·5	12	4·8	15	2·7	14	1·1	5	3·5	15	3·6	14
8	5·2	16	9·6	26	3·0	11	3·6	11	3·0	13	2·2	9	1·0	7	3·0	16	*1·9*	11	2·6	12	7·6	19	5·3	17
9	*8·7*	27	6·7	22	2·1	11	3·7	12	6·4	14	4·2	14	*0·9*	9	4·0	15	3·1	11	4·8	14	5·6	15	5·7	16
10	6·7	20	3·7	13	1·6	6	3·8	14	6·3	16	5·3	*21*	1·9	10	5·2	20	4·5	15	*7·2*	*18*	4·7	14	1·8	10
11	8·5	22	3·5	13	2·7	9	2·4	11	6·6	15	3·3	15	1·4	9	3·3	14	4·6	16	6·5	17	2·4	8	4·4	16
12	5·3	17	1·5	7	4·8	13	2·2	10	5·4	13	1·6	10	1·1	8	7·6	21	2·6	13	4·5	12	4·7	15	1·1	4
13	3·6	13	0·5	3	*8·1*	17	1·2	7	7·5	17	2·6	11	2·8	11	5·8	18	4·3	14	4·1	13	3·5	10	*0·5*	4
14	3·7	12	*0·4*	3	6·9	17	*0·6*	6	4·8	15	2·4	11	4·3	17	3·0	13	5·6	17	2·3	7	2·7	7	1·1	9
15	3·3	11	1·6	7	4·9	12	1·3	7	1·7	10	2·9	13	4·5	15	1·6	8	3·9	13	2·2	11	1·1	5	5·8	14
16	5·4	17	3·0	15	3·9	12	3·5	13	1·6	12	3·5	13	3·3	11	3·8	13	2·6	11	2·2	8	2·7	8	6·6	16
17	6·7	16	2·3	8	2·4	9	4·8	15	2·8	11	3·7	15	2·6	14	5·1	18	4·3	17	4·4	12	4·6	17	*6·9*	16
18	5·2	14	2·5	9	4·8	14	4·9	15	4·2	13	4·3	19	*5·9*	*18*	2·0	11	4·5	18	5·5	13	5·8	18	6·3	17
19	1·5	11	5·0	16	4·8	15	2·0	6	3·4	12	2·6	12	5·0	15	3·3	13	3·9	14	3·2	9	2·3	10	2·9	13
20	1·5	6	*8·9*	26	5·1	17	2·2	8	3·5	13	3·3	15	3·6	13	2·6	12	8·1	*31*	2·7	11	6·0	16	3·4	10
21	*1·0*	7	5·8	16	5·3	17	4·7	14	4·0	14	2·2	11	3·6	13	2·0	10	3·7	11	*1·1*	6	7·1	21	1·8	6
22	2·1	8	4·3	15	4·9	14	2·2	10	*1·1*	6	1·5	9	4·8	13	2·5	12	6·5	17	3·2	12	6·6	19	4·0	15
23	2·0	7	8·7	27	3·8	17	3·7	12	2·3	11	1·4	9	4·0	14	1·5	7	4·1	11	4·0	11	5·8	19	5·1	14
24	1·9	10	3·0	12	*0·7*	4	2·6	12	3·8	12	2·5	11	2·7	13	1·4	7	3·3	10	5·9	17	8·3	18	1·8	8
25	5·0	13	1·5	7	1·2	7	*5·8*	*17*	5·8	13	2·6	11	2·5	11	1·9	14	3·5	11	3·7	12	7·8	20	5·6	18
26	4·6	14	6·1	15	0·9	5	2·8	10	3·9	11	2·8	13	3·0	13	1·6	7	2·1	10	3·5	11	5·4	15	5·2	*19*
27	1·5	7	3·1	12	1·8	7	3·7	12	4·8	17	4·4	16	5·1	17	1·9	9	2·2	11	2·8	13	*8·5*	*21*	3·1	10
28	6·2	19	1·2	6	4·5	13	4·2	15	3·5	15	4·0	12	4·1	13	*8·6*	*27*	4·6	14	2·8	13	6·3	17	3·3	11
29	7·5	28			3·2	9	2·2	10	1·4	7	5·7	19	4·5	13	8·4	22	4·9	13	1·6	8	5·0	14	1·3	5
30	6·9	*28*			3·0	9	2·7	10	3·2	14	4·8	13	5·9	18	6·4	18	2·2	11	3·0	13	4·4	15	2·4	9
31	5·6	19			4·6	9			5·7	19			3·8	13	5·4	15			4·8	15			3·2	13

WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

192 KEW OBSERVATORY: h_a = 5 m. + 23 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	metres per second																								
Jan.	4·0	3·9	3·8	3·8	3·8	4·0	3·8	3·7	*3·7*	4·0	4·5	5·0	5·2	*5·2*	5·1	5·0	4·9	4·8	4·8	4·7	4·7	4·3	4·1	4·4	4·4
Feb.	4·2	4·2	4·2	4·1	4·3	4·2	4·3	4·1	4·5	5·1	5·1	5·6	*5·8*	5·8	5·5	5·4	4·9	4·5	4·3	4·2	*4·0*	4·0	4·2	4·1	4·6
Mar.	3·1	*3·1*	3·2	3·2	3·2	3·3	3·5	3·5	3·8	4·4	4·7	4·9	5·0	*5·3*	5·2	5·3	5·0	4·7	4·3	4·1	3·8	3·7	3·3	3·3	4·0
Apr.	2·2	2·2	2·2	2·2	*2·0*	2·1	2·1	2·5	2·9	3·4	3·9	4·3	4·4	*4·5*	4·4	4·4	4·3	4·3	3·7	3·0	2·9	2·5	2·6	2·4	3·1
May	3·6	3·4	3·6	*3·4*	3·5	3·6	4·1	4·2	4·9	5·1	5·4	5·8	5·7	5·8	*5·8*	5·6	5·6	5·3	4·9	4·8	4·3	4·2	4·1	3·9	4·6
June	*2·4*	2·5	2·6	2·6	2·7	2·8	2·9	3·4	3·7	4·3	4·5	4·6	4·8	4·8	4·9	*5·1*	5·1	4·8	4·2	3·9	3·2	2·8	2·5	2·5	3·7
July	2·2	*2·1*	2·3	2·2	2·2	2·3	2·3	2·9	3·2	3·5	3·9	4·1	4·2	4·5	4·5	4·6	4·5	*4·6*	4·3	3·6	3·0	2·7	2·5	2·2	3·3
Aug.	2·8	2·8	2·8	2·8	2·9	2·8	2·9	3·3	3·8	4·3	4·5	4·6	4·7	4·9	5·1	*5·1*	5·1	4·4	3·7	3·3	3·1	3·1	2·9	*2·7*	3·7
Sept.	3·5	3·4	3·4	3·3	3·2	2·8	*2·8*	3·2	3·8	4·7	5·0	5·2	5·6	*5·8*	5·5	5·2	4·8	4·4	4·0	3·9	3·7	3·7	3·5	3·3	4·1
Oct.	2·5	*2·3*	2·4	2·5	2·6	2·5	2·7	2·9	3·4	3·8	4·4	4·6	*4·9*	4·8	4·7	4·6	4·5	3·8	3·7	3·4	3·1	2·9	2·7	2·5	3·4
Nov.	3·8	*3·7*	3·9	3·9	4·1	4·2	4·3	4·5	4·6	4·7	5·0	5·3	5·4	*5·5*	5·3	4·9	4·8	4·4	4·1	4·4	4·5	4·1	4·0	3·9	4·5
Dec.	*3·2*	3·2	3·3	3·3	3·3	3·5	3·5	3·6	3·8	4·1	4·4	4·5	4·5	*4·6*	4·5	4·1	3·7	3·7	3·7	3·5	3·5	3·3	3·3	3·3	3·7
Annual	3·1	*3·1*	3·1	3·1	3·1	3·2	3·3	3·2	3·8	4·3	4·6	4·9	5·0	*5·1*	5·0	5·0	4·8	4·7	4·1	3·9	3·6	3·4	3·3	3·2	3·9

DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

193 KEW OBSERVATORY: h_a = 5 m. + 23 m.

	DISTRIBUTION OF WIND SPEED								EXTREME VELOCITIES				
	More than 17·1 m./sec.		10·8 to 17·1 m./sec.		5·5 to 10·7 m./sec.	1·6 to 5·4 m./sec.	Less than 1·6 m./sec.	No record	Highest hourly wind			Highest gust	
	Dates of occurrence	Duration	No. of days	Duration	Duration	Duration	Duration	Duration	Veer from N.	Speed	Hour ended	Speed	Date
		hr.		hr.	hr.	hr.	hr.	hr.	°	m./sec.	day h.	m./sec.	day h. m.
Jan.	–	0	4	21	214	378	131	0	260	13	30 02	28	30 01 25
Feb.	–	0	5	15	253	276	128	0	300	13	23 14	28	4 17 40
Mar.	–	0	0	0	212	383	149	0	360	10	2 11	19	2 10 25
Apr.	–	0	0	0	121	416	183	0	40	9	18 14	17	25 14 15
May	–	0	0	0	294	335	115	0	210	11	25 15	23	5 15 25
June	–	0	0	0	147	434	139	0	20	11	5 17	21	10 11 40
									225	11	5 15		
July	–	0	0	0	96	473	175	0	220	9	18 17	18	18 13 00
Aug.	–	0	3	7	155	419	163	0	205	12	28 15	27	28 17 10
Sept.	–	0	1	1	184	438	97	0	330	12	20 19	31	20 18 20
Oct.	–	0	0	0	110	496	138	0	55	10	10 13	18	10 11 05
Nov.	–	0	1	3	258	339	120	0	210	12	27 14	21	27 09 30
Dec.	–	0	0	0	179	419	146	0	200	10	25 15	19	26 18 00
Year	–	0	14	47	2223	4806	1684	0	300	13	Feb. 23 14	31	Sept. 20 18 20

TEMPERATURE IN THE GROUND AT DEPTHS OF 30 CM. (1ft.) AND 122 CM. (4ft.) AT 9h., G.M.T.

194 KEW OBSERVATORY

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.
											degrees Absolute													
1	76·5	81·1	78·4	79·2	75·6	80·0	81·6	80·5	84·6	82·9	86·6	84·7	90·3	87·1	90·2	89·0	88·8	88·5	88·8	87·7	81·0	84·7	81·1	83·1
2	76·0	80·9	78·6	79·1	75·3	79·9	81·3	80·6	84·9	83·1	86·7	84·8	91·2	87·2	91·0	88·9	89·0	88·2	88·5	87·8	80·8	84·4	80·9	83·1
3	75·7	80·8	78·8	79·2	75·6	79·7	82·0	80·8	84·6	83·1	86·7	84·9	92·0	87·3	91·0	88·9	88·9	88·2	88·8	87·8	81·3	84·9	80·2	83·1
4	75·3	80·6	79·6	79·2	75·4	79·6	82·8	80·9	84·5	83·2	86·8	84·9	92·5	87·4	91·3	88·9	88·6	88·2	88·1	87·9	82·3	84·3	79·2	83·0
5	75·2	80·2	79·0	79·4	75·6	79·5	83·7	81·0	84·3	83·2	86·8	85·0	91·0	87·6	92·1	88·9	88·7	88·2	87·9	87·8	82·0	84·1	78·2	82·9
6	76·6	80·2	78·7	79·4	76·0	79·4	82·2	81·1	83·6	83·3	86·9	85·1	90·3	87·8	92·0	89·0	88·3	88·1	88·0	87·9	81·8	84·1	78·0	82·7
7	77·3	80·1	79·7	79·5	75·6	79·2	81·6	81·2	83·8	83·3	86·8	85·1	90·6	87·9	91·6	89·0	87·9	88·1	86·7	87·8	81·0	84·1	77·3	82·3
8	77·5	80·0	81·0	79·7	75·5	79·1	82·0	81·3	83·9	83·3	88·0	85·1	90·9	87·9	90·6	89·1	88·1	88·3	86·0	87·6	81·0	84·1	77·5	82·1
9	78·6	80·0	80·2	79·9	75·2	79·1	82·2	81·4	83·4	83·3	87·8	85·1	91·1	88·0	90·0	89·1	88·0	88·1	85·9	87·5	81·2	84·0	78·0	82·0
10	79·5	80·0	79·0	80·0	75·0	79·1	81·6	81·5	83·8	83·3	87·7	85·2	91·8	88·1	90·1	89·1	88·1	88·1	85·8	87·3	81·0	84·0	77·8	81·9
11	80·5	80·1	79·1	80·1	74·9	78·9	80·8	81·6	84·1	83·3	87·0	85·3	92·7	88·1	89·5	89·0	88·2	88·0	85·6	87·2	81·0	83·9	77·1	81·6
12	80·9	80·2	79·0	80·1	75·5	78·9	81·3	81·7	84·3	83·4	86·8	85·4	93·2	88·2	90·0	89·1	88·0	88·0	85·2	87·0	81·1	83·7	77·1	81·4
13	79·4	80·3	79·8	80·1	76·8	78·8	81·7	81·6	84·8	83·4	87·1	85·5	93·4	88·2	89·5	89·0	88·2	87·9	85·3	87·0	81·6	83·8	76·3	81·2
14	78·0	80·4	80·2	80·1	76·9	78·8	82·1	81·7	84·6	83·5	87·7	85·5	92·8	88·3	89·5	89·0	87·4	87·7	85·1	86·9	81·3	83·5	76·2	81·2
15	77·0	80·3	80·3	80·2	76·6	78·8	82·3	81·7	83·8	83·5	88·2	85·5	91·6	88·6	89·7	89·0	87·8	87·9	84·9	86·6	81·9	83·4	77·0	81·1
16	76·1	80·3	80·1	80·2	76·0	78·7	82·6	81·9	83·7	83·6	88·6	85·8	90·9	88·6	89·1	88·9	87·6	87·8	84·6	86·6	82·0	83·4	75·9	81·0
17	75·9	80·2	80·2	80·3	75·7	78·8	84·0	81·9	83·7	83·6	88·5	85·8	89·2	88·7	88·5	88·8	87·5	87·8	84·5	86·4	81·7	83·3	75·3	80·9
18	75·2	80·1	79·9	80·4	77·0	78·9	83·8	82·1	84·5	83·5	88·7	85·9	89·9	88·6	88·0	88·9	87·5	87·7	84·2	86·3	81·2	83·4	75·1	80·7
19	75·1	80·1	80·3	80·5	78·5	78·8	82·6	82·1	84·6	83·6	88·0	85·9	89·6	88·5	88·8	88·6	87·2	87·6	84·2	86·1	80·9	83·3	75·0	80·4
20	74·9	79·8	80·1	80·5	78·8	78·8	82·8	82·2	84·5	83·6	87·5	86·0	90·0	88·4	89·0	88·3	87·6	87·5	85·0	86·1	81·7	83·2	74·9	80·3
21	74·8	79·6	78·8	80·6	79·9	79·1	83·5	82·3	85·0	83·8	87·7	86·1	89·9	88·5	88·4	88·3	86·9	87·4	85·6	86·1	82·0	83·2	74·6	80·1
22	74·7	79·4	77·4	80·6	80·3	79·1	83·3	82·3	85·1	83·9	88·4	86·1	90·0	88·2	88·8	88·2	87·1	87·3	85·9	86·0	81·6	83·1	74·6	80·1
23	74·8	79·2	78·1	80·5	80·0	79·3	83·1	82·3	86·4	83·9	89·4	86·1	91·0	88·3	89·0	88·3	87·8	87·3	85·8	86·0	80·6	83·1	74·8	79·9
24	74·9	79·2	77·8	80·5	80·0	79·4	83·7	82·5	86·4	83·9	90·5	86·2	91·1	88·3	90·0	88·2	87·5	87·3	84·6	86·0	81·8	83·1	75·0	79·8
25	75·0	79·1	77·4	80·3	79·5	79·6	83·5	82·6	86·3	84·0	90·1	86·3	91·7	88·3	90·5	88·2	87·8	87·3	82·7	86·1	82·0	83·1	75·0	79·7
26	76·2	79·1	77·7	80·3	79·6	79·7	83·5	82·6	86·4	84·1	90·1	86·4	91·2	88·5	90·6	88·3	88·5	87·4	82·0	85·9	81·9	83·1	75·8	80·3
27	76·7	79·0	76·9	80·2	79·9	79·9	84·0	82·7	86·1	84·2	90·0	86·7	91·1	88·9	90·0	88·4	88·8	87·4	82·1	85·8	81·4	83·0	76·1	79·3
28	76·4	79·1	76·2	80·1	80·0	80·0	84·2	82·9	86·2	84·3	89·7	86·9	90·6	89·0	90·0	88·6	88·8	87·3	81·9	85·6	82·1	83·1	76·2	79·3
29	77·7	79·1			80·9	80·1	84·2	82·9	86·4	84·3	90·0	86·9	90·8	88·9	89·4	88·7	89·2	87·3	80·9	85·3	82·0	83·1	76·2	79·3
30	78·0	79·1			81·2	80·1	83·9	82·9	86·5	84·4	89·9	87·0	91·1	89·0	88·8	88·4	89·0	87·5	80·5	85·1	81·7	83·1	76·8	79·3
31	77·0	79·1			81·5	80·3			87·3	84·5			90·8	89·0	88·8	88·3			81·0	85·0			76·6	79·3
Mean	76·7	79·9	79·0	80·0	77·6	79·3	82·7	81·8	84·9	83·6	88·2	85·7	91·1	88·2	89·9	88·7	88·1	87·8	85·0	86·7	81·5	83·6	76·8	81·0
											Year		83·5	83·9										

MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 21h. TO 9h., G.M.T.

195 KEW OBSERVATORY

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
						degrees Absolute						
1	64·8	79·7	65·8	73·6	74·9	79·6	87·3	77·8	76·8	79·6	77·3	73·9
2	71·6	76·4	70·2	71·4	79·6	81·4	81·3	85·8	82·5	78·3	70·7	77·4
3	63·4	78·6	72·5	74·1	80·1	80·2	81·5	84·8	84·4	81·5	78·6	73·6
4	63·6	79·5	65·3	75·8	76·8	76·5	88·1	79·1	85·8	77·8	77·2	71·6
5	73·2	76·2	74·3	80·3	72·5	84·7	82·4	80·8	83·6	84·0	72·7	66·9
6	76·9	74·2	72·9	70·6	73·0	80·8	80·8	84·1	77·5	83·3	73·6	69·7
7	68·6	80·3	73·6	69·6	80·0	*71·9*	76·4	86·2	74·2	70·8	71·4	66·3
8	73·0	83·4	65·0	71·8	79·4	84·2	78·3	80·4	82·7	74·2	76·7	69·1
9	80·8	74·0	64·1	69·7	76·2	79·6	78·6	79·8	80·2	75·4	78·6	76·2
10	78·7	72·0	*62·9*	66·2	76·2	84·6	79·1	86·8	79·2	80·8	75·7	69·7
11	84·6	72·8	65·2	*64·7*	78·6	77·2	81·2	77·3	84·2	78·9	79·1	71·4
12	77·2	75·3	73·4	70·7	78·3	75·2	82·5	85·1	75·6	78·9	79·5	66·3
13	72·5	79·6	75·8	69·8	77·5	73·8	83·5	85·0	84·1	83·1	75·8	69·7
14	67·3	78·7	74·7	70·3	74·7	75·6	85·4	84·1	76·4	81·3	76·7	71·3
15	67·1	78·1	74·2	70·8	*67·6*	83·9	79·7	81·0	81·1	80·2	79·4	73·2
16	65·8	79·7	72·9	71·3	69·7	80·9	82·4	74·7	*72·0*	75·0	79·7	64·3
17	69·9	72·9	65·2	81·8	70·8	82·3	*73·6*	84·2	80·1	81·4	74·7	70·9
18	69·9	73·7	77·3	80·1	78·1	83·9	85·7	*73·4*	82·4	78·1	77·4	68·6
19	64·2	80·1	80·1	67·7	78·7	79·4	84·0	81·4	81·2	81·4	75·8	69·6
20	*61·8*	75·8	69·7	68·2	70·6	78·6	85·6	84·6	84·0	79·1	83·5	65·9
21	65·3	71·2	79·9	73·7	77·6	77·4	84·1	79·9	76·3	79·2	78·9	*60·2*
22	71·4	66·4	80·7	70·5	71·6	77·4	85·8	79·0	83·7	81·5	75·7	66·9
23	72·6	75·6	73·8	69·0	75·6	83·0	87·4	81·3	87·0	82·5	*69·8*	75·8
24	70·8	69·3	73·0	72·2	80·8	84·2	81·7	83·7	78·9	75·1	82·4	72·4
25	69·9	67·6	70·2	76·8	81·3	77·4	78·3	84·1	80·7	69·2	80·8	65·8
26	77·8	74·7	68·3	80·7	82·4	84·5	78·6	81·4	85·2	74·1	77·8	73·1
27	68·4	70·2	69·6	80·3	83·6	78·0	84·4	75·6	81·4	74·7	74·7	72·4
28	72·2	*61·9*	69·9	81·1	75·3	85·2	79·1	84·7	82·3	73·6	81·9	73·3
29	76·3		76·3	80·6	81·6	81·9	85·0	83·6	86·9	*67·0*	80·1	71·3
30	74·3		73·2	74·6	75·9	84·8	85·0	81·4	79·1	69·8	75·3	74·6
31	72·4		73·4		80·7		82·4	81·8		72·9		69·2
Mean	71·2	74·9	71·7	73·3	76·8	80·3	82·2	81·7	81·0	77·5	77·1	70·3
						Year	76·5					

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0.

The minimum "on the grass" refers to the interval from 21h. on the previous day to 9h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

ELECTRICAL OBSERVATIONS, UNDERGROUND LABORATORY, WILSON METHOD

Mean value for periods of twenty minutes about 14h. 30m.

F = Potential gradient, unit 1 v./cm. $\lambda+$ = Conductivity due to positive ions, unit 10^{-15} ohm.$^{-1}$ cm.$^{-1}$
i = Air-earth current, unit 10^{-15} amp. cm.$^{-2}$

196 KEW OBSERVATORY

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	6·09	23	139	...	...	...	...	...	...	6·72	10	70	5·78	33	189	...	...	...
3	7·32	13	96	...	...	...	...	...	...	...	...	...	4·32	43	188	...	...	...
4	...	...	...	7·58	28	209	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	3·46	51	176	1·94	–	–
7	8·44	17	145	2·85	30	85	5·44	26	141	...	...	...	3·34	54	179	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	2·38	45	108	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	4·01	20	79	...	...	...	1·45	70	102	...	...	...	...	...	...
12	...	...	...	3·28	20	66	...	...	...	2·05	64	132	...	...	...	2·61	46	119
13	...	...	...	...	...	...	...	...	...	...	...	...	3·44	59	205	1·50	47	71
14	6·10	20	123	...	...	...	5·04	7	37	...	...	...	...	...	...	1·35	72	98
15	...	...	...	...	...	...	6·40	15	95	3·50	32	113	2·13	39	84	...	...	...
16	...	...	...	...	...	...	...	...	...	1·31	99	130	...	...	...	...	...	...
17	5·73	24	136	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	9·48	15	145	...	...	...	2·01	31	63	5·34	36	194	...	...	...	...	...	...
19	...	...	...	2·66	46	122	3·16	41	131	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	1·87	94	176	...	...	...
21	...	...	...	2·00	34	69	...	...	...	...	...	...	2·01	88	177	1·65	64	106
22	...	...	...	2·06	42	85	...	...	...	...	...	...	...	...	...	1·31	68	89
23	3·66	28	103	...	...	...	...	...	...	1·42	79	112	2·23	78	174	...	...	...
24	...	...	...	...	...	...	...	...	...	1·88	59	111	...	...	...	2·14	49	104
25	2·19	37	81	3·42	24	81	2·37	38	90	...	...	...	...	...	...	1·57	60	94
26	...	...	...	...	...	...	2·72	–	–	...	...	...	...	...	...	3·46	54	186
27	...	...	...	...	...	...	...	...	...	...	...	...	2·30	92	212	...	...	...
28	1·84	34	63	4·02	26	105	6·00	32	192	...	...	...	2·44	54	133	1·98	78	154
29	...	...	...				6·26	22	141	...	...	...	...	...	...	...	...	...
30	...	...	...				...	...	...	4·29	34	145	2·21	87	193	...	...	...
31	...	...	...				...	...	...				...	...	...			
Mean	5·65	23	115	3·54	30	100	4·38	27	111	3·03	53	122	2·96	64	174	1·95	60	113
No. of days used	9	9	9	9	9	9	9	8	8	10	10	10	12	12	12	10	9	9

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	1·88	83	156	...	...	...	2·09	65	136	3·18	54	173	...	...	...	...	...	...
3	1·79	83	149	...	...	...	...	...	...	2·86	41	117	...	...	...	2·54	27	69
4	2·11	52	110	...	...	...	...	...	...	...	...	...	4·42	36	158	...	...	...
5	1·97	53	105	...	...	...	3·06	62	189	...	...	...	...	...	...	7·69	–	–
6	...	...	...	...	...	...	...	...	...	...	...	...	7·05	11	81	4·44	24	105
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	1·77	53	93	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	1·61	41	66	2·02	70	142	2·66	39	104	...	...	...	...	...	...	...	...	...
10	1·70	45	77	...	...	...	3·08	49	151	4·50	34	153	...	...	...	10·24	–	–
11	1·20	66	79	...	...	...	...	...	...	2·82	59	165	3·58	–	–	...	...	...
12	1·26	69	87	2·30	86	199	1·97	40	78	...	...	...	...	...	...	...	...	...
13	...	...	...	1·69	56	95	...	...	...	...	...	...	4·84	16	79	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	1·49	50	74	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	2·14	61	132	6·01	30	179	...	...	...	...	...	...	...	...	...	7·66	37	284
17	...	...	...	...	...	...	...	...	...	5·11	31	156	...	...	...	7·46	20	151
18	...	...	...	...	...	...	...	...	...	6·24	14	85	...	...	...	...	...	...
19	...	...	...	2·44	77	187	2·56	–	–	...	...	...	...	...	...	5·83	39	228
20	...	...	...	2·38	37	88	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	1·81	51	92	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	4·07	32	131	...	...	...
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	...	...	...	...	...	...	...	...	...	5·08	30	155	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	3·81	25	97	...	...	...	...	...	...
26	...	...	...	1·71	60	103	2·87	44	125	...	...	...	5·03	24	116	...	...	...
27	...	...	...	1·68	69	116	2·19	27	59	...	...	...	...	...	...	...	...	...
28	...	...	...	...	...	...	...	...	...	3·24	24	78	2·14	21	44	4·07	13	53
29	...	...	...	1·60	74	119	...	...	...	...	...	...	4·34	37	163	...	...	...
30	...	...	...	1·95	66	129	2·49	45	111	...	...	...	...	...	...	5·72	14	78
31	...	...	...	...	...	...				...	...	...				6·89	12	84
Mean	1·72	60	103	2·33	61	132	2·55	46	119	4·09	35	131	4·43	25	110	6·25	23	131
No. of days used	11	11	11	11	11	11	9	8	8	9	9	9	8	7	7	10	8	8

Year:				
	Mean	3·57	42	122
	No. of days used	127	111	111

197 KEW OBSERVATORY

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	0	...	1	2·9	2	8·4	0	...	0	...	1	2·2
2	0	...	1	1·5	2	9·8	0	...	0	...	1	1·4
3	0	...	2	8·5	1	0·2	0	...	1	0·1	2	3·0
4	0	...	1	1·1	2	4·7	0	...	0	...	1	0·1
5	0	...	0	...	1	2·0	2	12·7	2	7·6	0	...
6	0	...	1	1·0	1	2·8	0	...	2	4·8	0	...
7	0	...	0	...	0	...	0	...	0	...	1	0·3
8	1	1·8	2	4·5	0	...	0	...	2	5·4	2	4·1
9	2	6·4	1	1·6	0	...	1	0·1	0	...	1	0·6
10	1	0·4	1	2·8	0	...	1	1·3	0	...	1	1·0
11	2	5·9	0	...	1	0·3	1	0·2	0	...	2	5·5
12	0	...	1	0·5	1	0·2	1	0·3	1	1·6	2	3·6
13	1	0·5	1	1·1	1	0·2	1	0·3	0	...	1	0·1
14	0	...	1	0·7	0	...	1	0·4	1	0·4	0	...
15	0	...	1	0·8	0	...	0	...	1	2·3	2	3·4
16	0	...	1	1·5	0	...	0	...	2	5·4	1	0·8
17	0	...	0	...	1	0·9	1	2·6	1	0·3	1	0·1
18	0	...	0	...	0	...	1	1·0	1	2·3	1	0·9
19	2	4·1	1	1·2	0	...	0	...	2	6·0	2	6·0
20	1	2·3	1	1·2	0	...	0	...	0	...	1	0·6
21	0	...	0	...	2	3·9	1	0·3	0	...	0	...
22	1	2·6	0	...	2	10·3	1	1·3	0	...	0	...
23	1	0·4	2	4·9	0	...	1	1·6	0	...	1	1·2
24	1	0·1	0	...	1	1·0	0	...	1	1·7	1	0·2
25	1	1·7	0	...	1	0·8	2	4·1	0	...	1	0·4
26	2	7·8	2	13·0	1	0·8	1	1·8	2	8·6	1	1·5
27	0	...	1	1·3	0	...	2	4·1	1	2·8	1	0·7
28	2	5·5	1	0·6	0	...	2	10·6	1	1·7	1	1·0
29	2	5·4			0	...	1	2·9	1	1·5	0	...
30	1	1·5			0	...	1	0·4	0	...	0	...
31	1	0·1			0	...			2	4·3		
Total	-	46·5	-	50·7	-	46·3	-	46·0	-	56·8	-	38·7
No. of days used	-	31	-	28	-	31	-	30	-	31	-	30
Mean	-	1·5	-	1·8	-	1·5	-	1·5	-	1·8	-	1·3

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	0	...	0	...	1	1·9	1	1·1	2	3·7	2	4·0
2	0	...	0	...	1	0·2	0	...	2	3·4	0	...
3	1	0·1	0	...	2	3·7	1	0·8	1	0·1	1	0·8
4	1	0·4	1	0·7	1	2·0	0	...	0	...	0	...
5	0	...	1	0·1	1	0·3	1	0·2	0	...	1	2·5
6	0	...	0	...	1	1·1	1	0·1	0	...	0	...
7	0	...	1	0·8	1	1·5	0	...	2	7·4	2	3·9
8	0	...	1	0·9	2	3·0	0	...	2	12·0	2	8·0
9	0	...	2	5·2	0	...	0	...	2	5·1	2	3·1
10	0	...	1	2·9	0	...	0	...	1	0·8	1	0·3
11	0	...	1	0·2	0	...	0	...	0	...	2	7·9
12	0	...	1	1·8	0	...	0	...	0	...	1	1·7
13	0	...	1	1·0	1	0·7	0	...	0	...	0	...
14	1	0·8	1	2·4	1	0·5	0	...	2	11·9	1	0·5
15	1	0·1	0	...	0	...	0	...	1	0·3	0	...
16	2	5·2	2	5·3	0	...	0	...	2	5·0	0	...
17	1	2·6	2	8·8	1	0·4	0	...	1	2·9	0	...
18	1	0·9	0	...	1	1·5	0	...	0	...	0	...
19	1	0·2	1	0·4	1	0·1	1	0·3	0	...	1	2·7
20	0	...	1	2·1	1	2·2	1	1·0	2	3·0	1	0·8
21	0	...	1	0·2	0	...	2	3·0	2	3·4	0	...
22	0	...	1	0·8	1	0·7	2	8·3	1	1·3	2	3·5
23	0	...	0	...	1	0·2	1	2·4	2	8·0	1	1·5
24	0	...	1	0·5	0	...	0	...	2	7·8	1	1·6
25	0	...	1	1·2	0	...	0	...	1	1·2	1	1·0
26	1	2·9	0	...	1	0·3	2	3·1	0	...	1	1·2
27	1	1·1	0	...	1	0·1	2	4·5	1	2·0	1	0·9
28	1	0·3	2	4·7	1	0·7	1	0·2	1	2·5	1	0·1
29	0	...	1	0·6	0	...	0	...	2	3·5	0	...
30	0	...	1	0·4	1	0·1	0	...	1	1·7	1	1·1
31	0	...	1	0·8			1	0·7			2	3·9
Total	-	14·6	-	41·8	-	21·2	-	25·7	-	87·0	-	51·0
No. of days used	-	31	-	31	-	30	-	31	-	30	-	31
Mean	-	0·5	-	1·3	-	0·7	-	0·8	-	2·9	-	1·6

Annual values: Character 0 1 2
No. of days 149 154 62

Duration: Total 526·3 hr.
No. of days 365
Mean 1·44 hr.

POTENTIAL GRADIENT (reduced to level surface, Paddock site)
Kelvin electrograph standardized by Wilson readings, underground laboratory
Mean values for periods of sixty minutes between exact hours, G.M.T.

198 KEW OBSERVATORY

	JANUARY, factor 4·42				FEBRUARY, factor 4·29				MARCH, factor 4·39			
	2-3h.	8-9h.	14-15h.	20-21h	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	790	500	585	500	95	265	-200	345	-105	-145	200	135
2	430	540	710	585	640	280	160	425	120	240	-350	-15
3	350	655	695	1210	120	-120	0	265	65	200	320	430
4	570	890	515	570	255	530	800	585	160	120	-25	455
5	360	320	415	585	335	560	360	690	480	575	350	200
6	360	430	530	555	490	225	335	650	-230	415	415	495
7	360	570	710	610	120	265	255	240	350	615	615	900
8	335	210	460	220	145	80	40	40	695	615	480	805
9	110	70	140	-915	105	410	215	505	550	775	430	685
10	155	405	390	220	295	305	385	665	655	495	350	775
11	95	55	-30	290	295	545	385	585	160	480	510	535
12	210	515	350	610	265	385	370	240	200	575	350	430
13	350	-165	445	710	305	295	370	65	430	480	350	455
14	655	1240	220	945	280	225	345	410	175	510	510	525
15	655	985	555	985	160	135	265	255	415	655	455	750
16	415	1015	695	860	265	335	-65	280	310	725	590	440
17	430	850	625	530	265	240	305	200	510	295	0	390
18	320	445	790	475	225	345	225	225	160	255	240	135
19	155	360	460	30	240	295	295	360	120	430	320	550
20	125	475	140	540	135	0	320	105	375	360	320	360
21	280	790	685	555	215	360	200	255	120	280	240	105
22	1000	860	195	250	255	360	175	400	-360	-190	-940	400
23	140	290	335	280	-65	-240	370	480	400	350	255	965
24	125	725	500	460	265	625	240	585	640	375	215	280
25	210	320	235	55	465	345	335	600	135	400	240	390
26	55	125	180	-945	-295	80	-320	120	40	255	270	845
27	155	930	530	655	160	280	450	680	240	430	565	725
28	220	475	210	-320	255	585	400	785	360	430	550	310
29	125	305	85	-55					360	440	645	525
30	85	485	-210	390					390	280	695	615
31	305	530	265	180					455	495	510	710
(a)	320	545	436	513	256	321	304	394	324	433	393	511
(b)	320	523	400	375	225	285	251	394	270	394	312	494
Mean		(a) 454	(b) 405			(a) 319	(b) 289			(a) 415	(b) 367	

	APRIL, factor 4·40				MAY, factor 4·33				JUNE, factor 4·28			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	395	555	610	780	420	620	420	555	145	260	380	455
2	385	490	620	500	290	570	580	555	40	285	130	365
3	330	580	170	670	240	500	450	555	15	285	195	250
4	580	460	225	370	290	490	275	390	340	170	195	115
5	185	-490	-305	290	120	-40	-160	265	90	115	220	220
6	240	185	250	395	25	120	355	265	220	250	210	185
7	265	330	225	555	160	460	370	395	315	485	170	130
8	265	185	265	420	Z±	Z-	120	580	210	365	Z±	25
9	305	540	265	475	290	555	250	530	185	275	170	250
10	250	275	275	345	355	595	490	460	90	155	-25	315
11	395	395	145	185	185	460	595	460	235	-235	Z±	Z±
12	240	345	185	170	-380	65	435	540	560	325	315	470
13	225	370	160	490	170	305	240	315	315	285	185	235
14	145	250	90	130	145	275	185	410	185	315	170	365
15	185	315	345	90	265	370	185	805	170	25	250	40
16	120	250	120	250	105	935	725	Z-	195	260	-25	220
17	90	200	200	-1000	275	290	225	355	220	315	210	250
18	250	460	420	580	395	450	-395	540	195	250	Z-	405
19	330	435	170	105	210	-715	700	435	210	0	220	485
20	170	250	145	170	345	290	185	385	260	300	Z±	445
21	80	130	130	160	265	210	200	410	285	315	155	340
22	-25	305	120	145	410	420	185	330	260	405	145	80
23	210	355	145	160	145	200	225	315	195	365	130	640
24	265	420	240	240	130	120	450	460	195	340	185	130
25	120	185	225	-65	265	330	355	370	195	350	145	210
26	15	265	265	765	80	200	-15	-160	115	115	220	155
27	200	620	410	-120	55	15	225	515	315	275	195	Z-
28	Z±	-200	55	145	515	210	240	160	115	315	220	195
29	25	290	Z+	105	420	55	225	420	275	260	210	285
30	Z+	730	435	805	450	515	240	160	115	115	155	325
31					185	240	-1015	555				
(a)	232	363	247	352	248	352	338	427	209	261	199	271
(b)	230	321	226	270	232	282	231	402	202	246	181	268
Mean		(a) 299	(b) 262			(a) 341	(b) 287			(a) 235	(b) 224	

The potential gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used: Z+, indeterminate, positive value; Z-, indeterminate, nagative value; Z±, indeterminate, in magnitude and sign.

(a) Mean of all positive readings.

(b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface, Paddock site)
Kelvin electrograph standardized by Wilson readings, underground laboratory
Mean values for periods of sixty minutes between exact hours, G.M.T.

	JULY, factor 4·29				AUGUST, factor 4·33				SEPTEMBER, factor 4·29			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	280	240	240	320	330	450	150	220	255	340	-40	355
2	320	210	185	265	110	330	205	175	140	255	225	310
3	210	330	175	345	190	275	165	285	155	300	-15	170
4	Z±	55	175	280	300	315	175	260	115	170	185	115
5	160	290	200	305	245	275	175	220	15	370	255	480
6	370	290	175	265	205	205	175	275	395	410	370	665
7	175	265	135	290	190	275	190	355	495	425	225	-30
8	120	345	240	185	340	-150	245	395	15	370	225	210
9	290	265	160	135	300	425	165	-315	170	425	270	410
10	345	570	200	210	80	205	0	435	255	440	255	325
11	265	385	135	200	315	395	135	505	140	325	270	455
12	135	225	105	120	195	275	220	190	185	370	185	325
13	175	210	145	120	40	165	175	340	140	325	300	510
14	160	200	95	185	80	380	165	330	310	425	70	125
15	175	240	120	225	285	435	165	260	125	300	200	325
16	-65	-200	175	160	370	545	450	-220	325	465	-	240
17	480	410	305	-120	380	-820	300	520	310	355	270	425
18	95	175	185	345	600	520	135	275	310	380	70	200
19	145	120	210	290	300	285	205	190	225	580	270	525
20	225	225	175	290	55	95	245	190	70	170	170	170
21	185	255	160	280	330	340	205	220	270	525	240	355
22	95	225	160	255	205	395	205	380	115	225	170	240
23	225	345	255	290	435	435	245	410	100	210	285	480
24	240	290	200	200	220	370	220	425	140	255	225	370
25	265	400	175	240	300	245	205	380	185	225	225	440
26	280	480	Z-	-135	230	370	175	315	240	325	270	455
27	240	55	80	-95	330	370	165	380	965	395	225	455
28	360	305	210	255	125	245	-25	355	185	380	425	480
29	160	265	210	255	95	165	175	315	200	285	340	200
30	185	225	80	200	175	275	190	340	140	395	255	525
31	240	360	160	265	230	300	300	600				
(a)	193	275	174	242	245	323	197	332	223	347	240	357
(b)	181	259	174	217	245	271	190	194	219	343	221	347
Mean	(a) 221		(b) 208		(a) 274		(b) 250		(a) 292		(b) 283	

	OCTOBER, factor 4·28				NOVEMBER, factor 4·35				DECEMBER, factor 4·33			
	2-3h.	9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	205	410	310	-230	-250	390	220	340	305	555	435	-570
2	500	500	335	500	Z-	445	470	390	145	450	435	490
3	180	460	310	425	65	195	350	535	185	685	410	950
4	335	540	310	515	445	300	470	455	370	540	475	620
5	245	310	155	310	480	755	615	420	595	605	765	-460
6	140	295	205	460	315	350	690	560	410	830	435	675
7	310	475	220	360	235	455	25	-220	580	395	530	675
8	345	385	410	670	-340	-155	-210	235	450	105	Z-	185
9	450	475	460	360	235	-25	0	65	185	80	330	475
10	285	435	450	515	185	250	260	50	540	715	860	105
11	335	515	515	680	340	430	365	535	-265	55	-105	765
12	385	410	-	205	405	405	340	260	790	1005	925	-275
13	75	310	435	530	105	470	405	615	1875	1890	1135	755
14	260	410	385	410	275	-90	-1435	105	460	925	950	355
15	220	360	490	680	520	520	325	510	90	370	420	530
16	630	565	490	810	185	-40	470	535	290	555	740	385
17	410	385	450	565	315	90	90	380	355	885	805	715
18	400	385	460	550	315	390	350	650	490	990	605	845
19	360	400	460	400	405	520	640	445	450	550	0	475
20	220	130	285	590	185	-470	315	210	460	715	780	530
21	310	435	310	155	260	-860	510	445	715	965	975	1530
22	75	65	0	-130	130	210	170	860	675	355	305	130
23	-15	640	515	320	950	535	220	-130	120	305	355	420
24	115	460	515	655	-145	-105	25	575	250	315	660	740
25	590	605	385	760	155	315	300	285	530	275	55	635
26	515	605	490	680	315	535	495	745	370	435	395	460
27	565	-1155	-15	360	170	155	115	-25	460	635	475	55
28	155	205	385	500	145	170	170	325	305	355	265	395
29	460	695	565	605	50	260	285	250	355	620	725	645
30	605	745	410	695	420	485	285	615	145	595	540	410
31	260	345	155	410					460	65	475	925
(a)	331	432	375	506	293	374	321	422	447	575	561	567
(b)	318	380	362	470	237	222	237	367	423	591	539	479
Mean	(a) 411		(b) 383		(a) 353		(b) 266		(a) 537		(b) 508	

The factor used for converting the potential at the collector to potential gradient in volts per metre in the open is given for each month.

Annual means	(a)	277	383	315	408
	(b)	258	343	277	356
		(a) 346		(b) 309	

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

199 KEW OBSERVATORY — Selected quiet days

	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non-cyclic change†	Mean
	volts per metre																									
Jan.	−107	−168	−139	−147	*−175*	−152	−105	−62	+58	+52	+15	+27	+4	+5	+29	+116	+137	*+198*	+179	+134	+54	+24	+47	−23	−50	589
Feb.	−34	−48	−74	−96	*−115*	−94	−71	+8	+49	+58	−5	+11	−8	−37	−55	−32	−25	+57	*+125*	+84	+93	+103	+79	+29	···	346
Mar.	−58	−88	−79	−87	−93	−94	*−111*	−71	−14	+24	+49	+22	+12	+22	+33	+19	+97	+76	+35	+65	*+130*	+58	+43	+12	+72	466
Apr.	−46	−47	−42	−66	−75	*−100*	−75	−36	+31	+38	+29	−9	−30	−38	−12	+1	+7	+62	+54	*+97*	+90	*+97*	+68	+4	−29	321
May	−69	−78	−95	*−102*	−100	−61	−16	+68	+76	*+85*	+56	+13	−19	−30	+3	+18	−5	+25	+69	+80	+67	+30	+4	−17	−33	351
June	−1	−3	−9	+5	+29	+36	+40	*+61*	+45	+2	−8	−31	−35	−26	−29	*−47*	−35	−38	−35	+13	+16	+15	+34	0	···	220
July	+8	−4	−3	−6	−1	+2	+26	+65	*+98*	+82	+27	−5	−37	−56	−64	*−72*	*−72*	−59	−48	−8	+21	+43	+42	+18	+2	231
Aug.	+11	−1	+9	+4	−11	+19	+64	*+110*	+106	+67	−9	−58	−88	−92	*−98*	−93	−86	−66	−37	+5	+51	+93	+74	+24	···	265
Sept.	−62	−74	−76	−72	−58	−32	+22	+86	*+103*	+48	+7	−40	−67	−58	−56	−73	−19	−13	−122	*−157*	−107	−41	−15	−37	···	311
Oct.	−63	−97	*−106*	−96	−72	−64	−29	+8	+47	+45	−4	−41	−34	−59	−45	−10	+27	+91	*+148*	+132	+110	+73	+47	−8	−26	461
Nov.	−32	−54	−58	−80	*−94*	−54	−37	−11	+5	+35	−21	−31	−85	−41	+20	+30	+44	+82	+96	*+105*	+92	+67	+26	+4	···	463
Dec.	−37	−63	−133	−135	−137	*−157*	−116	−4	+91	+73	+21	−58	+1	+11	+55	*+102*	*+102*	+66	+49	+55	+89	+63	+42	+19	···	597
Year	−41	−60	−67	−73	*−75*	−63	−34	+19	+58	+51	+13	−17	−32	−33	−18	−3	+14	+40	+43	+50	*+59*	+52	+41	+2	···	385
Winter	−53	−83	−101	−115	*−130*	−115	−82	−17	+51	+55	+3	−13	−22	−15	+12	+54	+65	+101	*+112*	+95	+82	+64	+49	+7	···	499
Equinox	−57	−77	−76	*−80*	−75	−73	−48	−3	+42	+39	+20	−17	−30	−33	−20	−16	+28	+54	+29	+34	*+56*	+47	+36	−7	···	390
Summer	−13	−21	−25	−25	−21	−1	+29	+76	*+81*	+59	+17	−20	−45	−51	−47	*−49*	*−49*	−35	−13	+23	+39	+45	+39	+6	···	267

Winter: January, February, November, December
Equinox: March, April, September, October
Summer: May to August

† See p. 10, *Observatories' Year Book, 1938.*

AIR POLLUTION: HOURLY MEANS FOR EACH MONTH

200 KEW OBSERVATORY — Complete days only

	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	No. of days used
	milligrams per cubic metre																									
Jan.	0·12	0·10	0·07	0·05	0·05	*0·03*	0·05	0·08	0·16	0·24	0·24	0·22	0·17	0·16	0·16	0·19	0·19	0·22	0·27	0·27	*0·28*	0·26	0·23	0·17	0·17	31
Feb.	0·10	0·07	0·07	0·06	*0·06*	0·06	0·07	0·10	0·15	0·14	0·13	0·11	0·10	0·10	0·11	0·11	0·11	0·14	0·16	0·17	0·18	*0·18*	0·16	0·11	0·12	28
Mar.	0·17	0·17	0·14	0·13	0·11	0·11	0·11	0·15	0·22	0·21	0·19	0·15	0·13	*0·10*	*0·10*	*0·10*	0·11	0·13	0·17	0·19	0·23	*0·24*	0·21	0·17	0·16	31
Apr.	0·10	0·11	0·11	0·12	0·12	0·10	0·13	0·15	*0·16*	0·12	0·08	0·06	0·05	0·05	*0·04*	0·04	0·06	0·07	0·12	0·11	0·13	0·14	0·12	0·11	0·10	30
May	0·03	0·03	0·04	0·04	0·05	0·05	0·06	*0·08*	0·07	0·06	0·05	0·06	0·03	0·03	0·03	*0·03*	0·03	0·04	0·04	0·05	0·06	0·05	0·03	0·03	0·05	31
June	0·02	0·02	0·02	0·02	0·02	0·01	*0·02*	*0·02*	0·01	*0·00*	*0·00*	*0·00*	0·01	0·01	0·01	0·01	0·01	0·01	0·02	0·01	*0·02*	0·02	0·02	0·02	0·01	30
July	0·00	*0·00*	*0·00*	0·00	0·01	0·01	0·02	*0·02*	0·01	0·01	0·01	0·00	0·00	0·00	*0·00*	0·00	0·00	0·01	0·01	*0·00*	0·00	0·01	0·01	0·00	0·01	31
Aug.	0·01	0·01	0·01	*0·00*	0·01	0·02	0·03	*0·04*	0·04	0·02	0·01	0·01	*0·00*	*0·00*	*0·00*	0·01	0·01	0·01	0·01	0·02	0·02	0·02	0·02	0·01	0·01	31
Sept.	0·01	*0·01*	0·01	0·02	0·01	0·02	0·03	*0·04*	0·03	0·03	0·01	0·01	*0·01*	0·01	0·01	0·01	0·02	0·02	*0·04*	0·03	0·02	0·02	*0·01*	*0·01*	0·02	30
Oct.	0·07	*0·05*	*0·05*	0·06	*0·05*	0·06	0·07	0·08	0·10	0·10	0·07	0·07	0·06	0·07	0·07	0·08	0·09	0·14	0·17	*0·19*	*0·19*	0·15	0·10	0·10	0·09	31
Nov.	0·05	*0·03*	0·03	*0·03*	*0·03*	0·03	0·03	0·05	0·05	0·05	0·06	0·07	0·09	0·09	0·10	0·11	0·14	*0·15*	0·14	0·13	0·11	0·10	0·08	0·06	0·07	30
Dec.	0·15	0·11	0·09	0·07	0·07	*0·07*	0·07	0·12	0·14	0·18	0·15	0·15	0·16	0·17	0·18	0·20	0·25	0·26	0·29	*0·33*	0·30	0·28	0·24	0·20	0·18	31
Year	0·07	0·06	0·05	0·05	0·05	*0·05*	0·06	0·08	0·09	0·10	0·08	0·08	0·07	0·07	0·07	0·07	0·09	0·10	0·12	0·13	*0·13*	0·12	0·10	0·08	0·08	365
Winter	0·11	0·08	0·07	0·05	0·05	*0·05*	0·05	0·09	0·13	0·15	0·15	0·14	0·14	0·14	0·14	0·15	0·17	0·19	0·21	*0·23*	0·22	0·21	0·18	0·13	0·13	120
Spring	0·13	0·14	0·13	0·13	0·11	0·11	0·12	0·15	*0·19*	0·17	0·13	0·11	0·09	0·07	*0·07*	*0·07*	0·09	0·10	0·15	0·15	0·18	*0·19*	0·17	0·14	0·13	61
Autumn	0·04	*0·03*	*0·03*	0·04	*0·03*	0·04	0·05	0·06	0·07	0·07	0·04	0·04	0·03	0·04	0·04	0·05	0·05	0·08	0·11	*0·11*	0·11	0·09	0·05	0·05	0·05	61
Summer	0·01	0·01	0·02	0·01	0·02	0·02	0·03	*0·04*	0·03	0·02	0·02	0·02	*0·01*	*0·01*	*0·01*	0·01	0·01	0·02	0·02	0·02	0·03	0·03	0·02	0·01	0·02	123